AMERICAN CHEMICAL SOCIETY

Oil, Paint and Drug Reporter

VOL. LXII No. 1. NEW YORK, MONDAY, JULY 7, 1902 FOR RATES SEE PAGE 7.

LEHN & FINK, - New York

Offer to advantage

BLEACHED CARDAMOMS
SPANISH SAFFRON
LARGE FLAKE MANNA
MANNIT
BENZOIC ACID, from gum
OIL SANDALWOOD, E. I. and W. I.

Chas. Cooper & Co. 194 Worth St., New York CHEMISTS,

Extra Refined Wood Alcohol, Oil of Vitriol,
AMYL ACETATE, SOLUBLE COTTON.
SEND FOR PRICE LIST.

BARYTES
THE MEPHAM & KRAUSSE MANUFACTURING CO.

Successors to
DINGEE, WEINMAN & CO.
General Office, Sidney Street Factory
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Manhattan Spirit Co.

BUFFALO, N. Y.
MANUFACTURERS OF
Refined Wood Alcohol
AND SOLE MANUFACTURERS OF
Columbian Spirit

PRICE LIST.

Extra Refined 95% - -	65c.	Per Gallon
Special Refined 97% -	70c.	" "
COLUMBIAN SPIRIT (A pure methyl alcohol.)	1.50	" "

AGENTS:

WILLIAM S. GRAY	76 William St., New York City.
PIERCE & STEVENS	Buffalo, N. Y.
H. C. COLLIER & SONS	Binghamton, N. Y.
MERRIMAC CHEMICAL CO.	75 and 77 Broad St., Boston, Mass.
MARTIN THAYER	50 Central St., Boston, Mass.
M. L. BARRETT & CO	219 Lake St., Chicago, Ill.
F. W. THURSTON & CO	29 River St., Chicago, Ill.
PAUL A. DAVIS, JR	136 N. Water St., Philadelphia, Pa.
A. L. WEBB & SONS	Baltimore, Md.
C. B. LYON & BRO	St. Paul, Minn.
ABNER HOOD	Kansas City, Mo.
RICHARDSON DRUG CO	Omaha, Neb.
W. A. HOVER & CO	Denver, Colo.
THE BEHRENS DRUG CO	Waco and Houston, Tex.
W. P. FULLER & CO	San Francisco, Cal.
F. W. BRAUN & CO	Los Angeles, Cal.

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ESTABLISHED 1849
A. L. Webb & Sons
Pratt & Commerce Sts.,
BALTIMORE, MD.

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The Thresher Varnish Company

OFFICE AND FACTORY, DAYTON, OHIO.
Makers of High Standard Varnishes, Fine Architectural Finishes, and Genuine Open Kettle-Boiled Linseed Oil

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COD, MENHADEN, COD LIVER AND OLIVE OILS,
WHITE FISH OIL, DEGRAS,
PALMETTO, QUEBRACHO & HEMLOCK EXTRACTS

FERROUS PIGMENT COMPANY, CLEVELAND, OHIO.

MANUFACTURERS OF
HIGH GRADE OXIDES, INDIAN, TUSCAN and VENETIAN REDS,
GREEN and YELLOW OXIDES.
All colors having exceptional Brilliancy and Velvety Texture and absolutely free from Acid.
WRITE FOR SAMPLES.

BEESWAX Crude Refined and Bleached

FOR SALE BY
W. H. BOWDLEAR & CO., Importers, BOSTON

FLETCHER MANUFACTURING CO. ESTAB. 1798.

FLETCHER WICK IS WARRANTED TO POSSESS THE HIGHEST CAPILLARY POWER

Factories, Providence, R. I.
WAREHOUSES.
18 & 20 Thomas Street, New York, W. B. Fletcher, Agent.
53 Lincoln Street, Boston, William F. Hall, Agent.

Chlorate of Potash

AMERICAN MAKE
DILLON & CO., 20 Cedar St., New York City

PATERSON, BOARDMAN & CO.

IMPORTERS & GENERAL EAST INDIA MERCHANTS
New Maritime Building, 8-10 Bridge, St., New York.
Plumbago, Kauri Gum, Manila Gum,
Cocoanut Oil, Zanzibar Gum, Damar Gum, etc.

WEBB'S ALCOHOL

THE ACKNOWLEDGED STANDARD

JAMES A. WEBB & SON, 165 Pearl Street, NEW YORK

GALENA OIL COMPANY

CHARLES MILLER, President. **FRANKLIN. PA.**

Galena Oils are the standard railway lubricants of America.

Galena Oils are used exclusively on nineteen-twentieths of the total railway mileage of the United States, Canada and Mexico.

Galena Oils lubricate the fastest trains of the world, and hot bearings as a result of defective lubrication are unknown to the patrons of Galena Oil Company.

Galena Oils are manufactured exclusively by Galena Oil Company.

Principal Office and Works, ... **FRANKLIN, PA.**

STANDARD OIL CO. Boston Dept.

Sell the Finest Grade of Stove Naphtha for

VAPOR STOVES

The disagreable features connected with cooking are done away with by the use of a **Vapor Stove.**

There is no kindling to prepare, no ashes to remove and no waiting for sufficient heat.

Its full power is instantly developed and ceases at your touch.

Its first cost is in itself attractive.

Its fuel cost is less than One-Half Cent per Hour.

Cable Address, "Regent, New York."

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OF NEW YORK.

Thompson & Bedford Department

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Blumenstrasse 15, Frankfort A/M, Germany
5 Puerto del Angel, Barcelona, Spain.
21 Esplanade Road, Bombay, India.
Billiter Buildings; 22 Billiter Street, London; E. C. Eng.
25 Boulevard Haussman, Paris, France.
Collins & William Streets, Melbourne, Australia.
21 Strand Road, Calcutta, India.

BEST

Petroleum Lubricants

OF GREAT BODY OR VISCOSITY AND HIGH FLASH.

Pale Spindle, Machinery and Engine Oils.

BAYONNE ENGINE OIL. In exclusive Use by the English Admiralty.

RAILROAD ENGINE AND CAR OILS **300° MINERAL COLZA OIL**

CYLINDER OILS

LUBRICATING GREASES **PARAFFINE SCALE AND WAX**

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OIL CITY, PA.	PITTSBURGH, PA.	BAYONNE, N. J.	HUNTER'S POINT, N. Y.	PARKERSBURG, W. VA.

THE S. P. WETHERILL COMPANY

MANUFACTURERS OF

COPPERAS

IN CAR LOADS OR LESS, BARRELS OR BULK.

100 William St. NEW YORK. 925 Chestnut St., PHILADELPHIA.

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WOULD FIND IT TO THEIR ADVANTAGE TO ADVERTISE IN THESE COLUMNS.

MACHINERY OF ALL KINDS is used in the manufacture of OILS, PAINTS, DRUGS, CHEMICALS, DYESTUFFS, Etc. We will bring you in direct contact with the largest manufacturers in these lines.

OIL, PAINT AND DRUG REPORTER, 100 William St., New York.

BORNE, SCRYMSER COMPANY,

REFINERS OF

HIGH GRADE PETROLEUM LUBRICANTS

CYLINDER OILS,

Engine Oils, Machinery Oils, Railroad Engine and Car Oils

Spindle Oils Wool Oils. 300 deg. Fire Test Burning Oils. Neutral Oils. Lubricating Greases. Paraffine Wax.

Works: Elizabethport, N. J.

OFFICES: 80 and 81 South Street, New York.
3 Adelaide Place, London Bridge, London, Eng.
18 St. Ann Street, Manchester, Eng.
57 West Nile Street, Glasgow, Scotland.
4 Rue Chauchat, Paris, France.
52 Dovenhof, Hamburg, Germany.

WATERS PIERCE OIL CO.

REFINERS OF

PETROLEUM

Manufacturers of CAR and AXLE GREASE

PRINCIPAL OFFICE

816 Olive St., Odd Fellows Bldg, St. Louis, Mo., U.S.A.

Depots in all Towns in the SOUTHWEST and OLD MEXICO

MICA AXLE GREASE

The sales of "Mica" in the United States during the year 1901, were equal to

1 POUND TO EVERY 11 PERSONS

There must be *Merit* in it. Do you keep it in stock?

PURE REFINED PARAFFINE WAX

FOR HOUSEHOLD USE.

Put up in Cakes, WITH BLUE WRAPPER, Full Directions and Useful Suggestions in each Package.

We should be pleased to quote you prices on the above and also on

Standard Floor Dressing	Standard Hoof Oil	Commercial Neatsfoot Oil	New York Carriage Grease
Eureka Harness Oil	Sewing Machine Oil	Ruddy Harvester Oil	Petrolatum
Boston Coach Oil	Vegetable Castor Oil	Diamond Axle Grease	Petrolatum Oil

STANDARD OIL CO. OF NEW YORK SPECIALTY DEPARTMENT, No. 666 HUDSON ST NEW YORK.

Directory for Buyers.

This list is intended to assist buyers in quickly ascertaining who are headquarters for everything in the Chemical, Drug, Oil, Paint, Dyestuffs, Fertilizers, Naval Stores and allied trades, also Machinery manufacturers. The names given in this list are those of representative concerns, and it is respectfully requested, when communicating with any of them, that the fact that the name was taken from this list be mentioned. For Machinery advertisements see page 23.

ACETANILID.

C. Bischoff & Co., 87 Park Place, New York.
Merck & Co., New York.
N. Y. Quinine & Chemical Works, New York.
R. W. Phair, 16 Platt St., New York.
Roessler & Hasslacher Chemical Co., 100 William St., New York.

ACETATE OF ALUMINA.

Merrimac Chem Co., 75-77 Broad St., Boston.
The Selling Co., 182 Front St., New York.

ACETATE OF LEAD.

General Chem. Co., 25 Broad St., New York.
Thomsen Chemical Co., Baltimore, Md.

ACETATE OF SODA.

J. A. & W. Bird & Co., 88 Wall St., N. Y.
Cochrane Chemical Co., 55 Kilby St., Boston.
General Chem. Co., 25 Broad St., New York.
Grasselli Chemical Co., Cleveland and N. Y.
Merrimac Chem. Co., 75-77 Broad St., Boston.
Roessler & Hasslacher Chemical Co., 100 William St., New York.
The Selling Co., 182 Front St., New York.

ACETIC ACID.

J. A. & W. Bird & Co., 88 Wall St., N. Y.
General Chem. Co., 25 Broad St., New York.
Grasselli Chemical Co., Cleveland and N. Y.
Harrison Bros. & Co., Inc., Philadelphia.
Merrimac Chem. Co., 75-77 Broad St., Boston.
Roessler & Hasslacher Chemical Co., 100 William St., New York.
The Selling Co., 182 Front St., New York.
Thomsen Chemical Co., Baltimore, Md.

ACETONE.

Schoellkopf, Hartford & Hanna Co., Buffalo and New York.

AGAR AGAR (JAPANESE GELATINE.)

Zinkeisen & Co., New York and Chicago.

ALIZARINE COLORS.

F. E. Atteaux & Co., 174-176 Purchase St., Boston.
Cassela Color Co., 182 Front St., New York.
A. Klipstein & Co., 122 Pearl St., New York.
Victor Koechl & Co., 122 Hudson St., N. Y.
Kuttroff, Pickhardt & Co., 128 Duane St., N. Y.
Arnold, Hoffman & Co., Inc., Providence.
Brunner, Mond & Co., Ltd., Northwich, Eng.

ALKALI.

Hollingsworth & Peterson, 653 Bourse, Phila.
Linder & Meyer, 89 State St., Boston.
The Selling Co., 182 Front St., New York.
Solvay Process Co., Syracuse and New York.
Wing & Evans, 22 William St., New York.
Isaac Winkler & Bro., Cincinnati, Ohio.

ALUM.

Cochrane Chemical Co., 55 Kilby St., Boston.
General Chem. Co., 25 Broad St., New York.
Harrison Bros. & Co., Inc., Philadelphia.
Kuttroff, Pickhardt & Co., 128 Duane St., N. Y.
Merrimac Chem. Co., 75-77 Broad St., Boston.
Penna. Salt Mfg. Co. 115 Chestnut St., Phila.
The Selling Co., 182 Front St., New York.

ALUMINA.

Cochrane Chemical Co., 55 Kilby St., Boston.
General Chem. Co., 25 Broad St., New York.
Harrison Bros. & Co., Inc., Philadelphia.
A. Klipstein & Co., 122 Pearl St., New York.
Kuttroff, Pickhardt & Co., 128 Duane St., N. Y.
Merrimac Chem. Co., 75-77 Broad St., Boston.
Penna. Salt Mfg. Co. 115 Chestnut St., Phila.
The Selling Co., 182 Front St., New York.

AMMONIA NITRATE, PURE AND COM'L.

Geo. A. Erkenbrach, 115 Maiden Lane, N. Y.

AMYL ACETATE.

Albany Chemical Co., Albany, N. Y.
Chas. Cooper & Co., 194 Worth St., New York.
Maas & Waldstein, 107 Murray St., New York.
Schoellkopf, Hartford & Hanna Co., Buffalo and New York.

ANILINES.

F. E. Atteaux & Co., Boston.
Berlin Aniline Works, 213 Water St., N. Y.
J. A. & W. Bird & Co., 88 Wall St., N. Y.
C. Bischoff & Co., 87 Park Place, New York.
Cassela Color Co., 182 Front St., N. Y.
Heller & Merz Co., 22 Cliff St., N. Y.
Howe, Fuller & Trunkett, 92 State St., Boston.
Victor Koechl & Co., 122 Hudson St., N. Y.
A. Klipstein & Co., 122 Pearl St., New York.
Kuttroff, Pickhardt & Co., 128 Duane St., N. Y.
Schoellkopf, Hartford & Hanna Co., Buffalo and New York.

AQUA AMMONIA.

Cochrane Chemical Co., 55 Kilby St., Boston.
Columbia Chemical Works, 43 Sedgwick St., Brooklyn.
Geo. A. Erkenbrach, 115 Maiden Lane, N. Y.
General Chemical Co., 25 Broad St., New York.
Grasselli Chemical Co., Cleveland and N. Y.
Harrison Bros & Co., Inc., Philadelphia.
Heller, Hirsh & Co., 62 William St., N. Y.
Merrimac Chem. Co., 75-77 Broad St., Boston.
Thomsen Chemical Co., Baltimore, Md.
John C. Wiarda & Co., Brooklyn, N. Y.

ARSENIC.

Harshaw, Fuller & Goodwin Co., Cleveland, O.
Edw. Hill's Son & Co., 17 Cedar St., N. Y.
A. Klipstein & Co., 122 Pearl St., New York.
Victor Koechl & Co., 122 Hudson St., N. Y.
McKesson & Robbins, 91 Fulton St., N. Y.
Roessler & Hasslacher Chemical Co., 100 William St., New York.
Schoellkopf, Hartford & Hanna Co., Buffalo and New York.
John C. Wiarda & Co., Brooklyn, N. Y.
Isaac Winkler & Bro., Cincinnati, O.

ASPHALTUM.

Gilson Asphaltum Co., St. Louis.
John S. Lamson & Bro., 77 Maiden Lane, N.Y.
Melchior, Armstrong & Dessau, 32 Broadway.

BARIUM HYDRATE.

United Barium Co., 44 Broad St., New York.

BARYTES.

Geo. G. Blackwell, Sons & Co., Ltd., The Albany, Liverpool, Eng.
Carolina Mineral Co., 140 Maiden Lane, N. Y.
Clarke & White Co., 106 Fulton St., N. Y.
Gabriel & Schall, 205 Pearl St., New York.
The Mepham & Krausse Mfg. Co., St. Louis.

BEESWAX.

J. A. & W. Bird & Co., 88 Wall St., N. Y.
W. H. Bowdlear & Co., Boston, Mass.
Smith & Nichols, 145 Front St., New York.
Tidewater Oil Co., 12 Broadway, New York.

BI-CARB. SODA.

Church & Dwight Co., 64-66 Wall St., N. Y.
Diamond Soda Works, Milwaukee, Wis.
Edward Hill's Son & Co., 25 Cedar St., N. Y.
Penna. Salt Mfg. Co., 115 Chestnut St., Phila.

BICHROMATE OF POTASH.

Baltimore Chrome Works, Baltimore, Md.
Fergusson Bros., Philadelphia.
The Selling Co., 182 Front St., New York.

BISULPHIDE OF CARBON.

Chas. Cooper & Co., 194 Worth St., New York.
Geo. A. Erkenbrach, 115 Maiden Lane, N. Y.
E. R. Taylor, Penn Yan, N. Y.

BISULPHATE OF SODA.

J. A. & W. Bird & Co., 88 Wall St., N. Y.
Cochrane Chemical Co., 55 Kilby St., Boston.
General Chem. Co., 25 Broad St., New York.
Grasselli Chemical Co., Cleveland and N. Y.
Kuttroff, Pickhardt & Co., 128 Duane St., N. Y.
Merrimac Chem. Co., 75-77 Broad St., Boston.
The Selling Company, 182 Front St., N. Y.

BLEACHING POWDER.

Acker Process Co., Niagara Falls, N. Y.
Arnold, Hoffman & Co., Inc., Providence.
J. A. & W. Bird & Co., 88 Wall St., N. Y.
The Dow Chemical Co., Midland, Mich.
Fergusson Bros., Philadelphia.
Fuerst Bros. & Co., 2 Stone St., New York.
Hollingsworth & Peterson, Philadelphia.
A. Klipstein & Co., 122 Pearl St., New York.
James Lee & Co., 76 William St., New York.
Linder & Meyer, 89 State St., Boston.
J. L. & D. S. Riker, 46 Cedar St., New York.
Roessler & Hasslacher Chemical Co., 100 William St., New York.
Wing & Evans, 22 William St., New York.
Isaac Winkler & Bro., Cincinnati, Ohio.

BLUE VITRIOL.

J. A. & W. Bird & Co., 88 Wall St., N. Y.
Fergusson Bros., Philadelphia.
General Chem. Co., 25 Broad St., New York.
Grasselli Chemical Co., Cleveland and N. Y.
Penna. Salt Mfg. Co., 115 Chestnut St., Phila
The Selling Co., 182 Front St., New York.

BONE BLACK.

Binney & Smith, 81 Fulton St., New York.
Lister's Agri. Chem. Wks., 26 B'way, N. Y.
Michigan Carbon Works, Detroit, Mich.
Wegelin & Wilckes Black Mfg. Co., 50 Cliff St., New York.

BORACIC ACID.

Pacific Coast Borax Co., 100 William St., N. Y.
Chas. Pfizer & Co., New York.
Roessler & Hasslacher Chemical Co., 100 William St., New York.
John C. Wiarda & Co., Brooklyn, N. Y.

BORAX.

Pacific Coast Borax Co., 100 William St., N. Y.
Chas. Pfizer & Co., New York.
John C. Wiarda & Co., Brooklyn, N. Y.

CALCIUM CHLORIDE.

Carbondale Chemical Co., Carbondale, Pa.
J. H. Schoneberger, Columbus, O.
Wing & Evans, 22 William St., N. Y.

CAMPHOR.

American Camphor Refining Co., 14 Fulton St. Boston, and 5 Platt St., New York.
H. J. Baker & Bro., 100 William St., N. Y.
Chas. Pfizer & Co., New York.

CANDLES.

F. L. Young & Kimball, New Bedford, Mass

CARBOLIC ACID.

Barrett Mfg. Co., Philadelphia.
Fuerst Bros. & Co., 2 Stone St., New York.
Kuttroff, Pickhardt & Co., 128 Duane St., N. Y.
Lehn & Fink, 120 William St., New York.
McKesson & Robbins, New York.
Merck & Co., New York.
Schieffelin & Co., 172 William St., New York.
Schoellkopf, Hartford & Hanna Co., Buffalo and New York.

CARBONATE OF AMMONIA.

Michigan Carbon Works, Detroit.

CARBONATE OF POTASH.

J. A. & W. Bird & Co., 88 Wall St., N. Y.
Fergusson Bros., Philadelphia.
Fuerst Bros. & Co., 2 Stone St., New York.
Edw. Hill's Son & Co., 27 Cedar St., N. Y.
A. Klipstein & Co., 122 Pearl St., New York.
Kuttroff, Pickhardt & Co., 128 Duane St., N. Y.
James Lee & Co., 76 William St., New York.
The Roessler & Hasslacher Chemical Co., 100 William St., New York.
Louis de Vriendt, Antwerp, Belgium.
John C. Wiarda & Co., Brooklyn, N. Y.
Isaac Winkler & Bro., Cincinnati, Ohio.

CARBON BLACK.

Binney & Smith, 81 Fulton St., New York.
Godfrey L. Cabot, 100 Broad St., Boston, Mass.
Lehn & Fink, 120 William St., New York.
Geo. F. Taylor Co., 80 Pine St., New York.
Wegelin & Wilckes Black Mfg. Co., 50 Cliff St., New York.

CASCARA.

S. Heitshu & Co., 65 Front St., Portland, Ore.
Lehn & Fink, 120 William St., New York.
McKesson & Robbins, New York.

CASTOR OIL.

H. J. Baker & Bro., 100 William St., N. Y.
Fuerst Bros. & Co., 2 Stone St., New York.
National Lead Co., 100 William St., New York.

CAUSTIC SODA.

Acker Process Co., Niagara Falls, N. Y.
Arnold, Hoffman & Co., Providence.
J. A. & W. Bird & Co., 88 Wall St., N. Y.
Fergusson Bros., Philadelphia.
Fuerst Bros. & Co., 2 Stone St., New York.
General Chem. Co., 25 Broad St., New York.
Edward Hill's Son & Co., 25 Cedar St., N. Y.
Hollingsworth & Peterson, 653 Bourse, Phila.
A. Klipstein & Co., 122 Pearl St., New York.
James Lee & Co., 76 William St., New York.
Linder & Meyer, 89 State St., Boston.
Penna. Salt Mfg. Co., 115 Chestnut St., Phila.
Thomsen Chemical Co., Baltimore, Md.
Welch & Welch, 121 Broad St., New York.
John C. Wiarda & Co., Brooklyn, N. Y.
Wing & Evans, 22 William St., New York.
Isaac Winkler & Bro., Cincinnati, Ohio.

CHALK.

Charles Earl Currie & Co., Louisville, Ky.

CHEMISTS—EXPERT.

Dr. Peter T. Austen, 80 Broad St., New York.

CHINA CLAY.

The Atlas Co., Lincoln, N. J.
Fuerst Bros. & Co., 2 Stone St., New York.
John C. Wiarda & Co., Brooklyn, N. Y.

CHLORATE OF POTASH.

Dillon & Co., 20 Cedar St., New York.
Fergusson Bros., Philadelphia.
A. Klipstein & Co., 122 Pearl St., New York.
Kuttroff, Pickhardt & Co., 128 Duane St., N. Y.
Linder & Meyer, 89 State St., Boston.
R. W. Phair & Co., 16 Platt St., New York.
J. L. & D. S. Riker, 46 Cedar St., New York.
Roessler & Hasslacher Chemical Co., 100 William St., New York.
Rogers & Pyatt, 78 Maiden Lane, New York.
Schoellkopf, Hartford & Hanna Co., Buffalo and New York.
Louis de Vriendt, Antwerp, Belgium.

CHLORATE OF SODA.

A. Klipstein & Co., 122 Pearl St., New York.
Kuttroff, Pickhardt & Co., 128 Duane St., N. Y.
J. L. & D. S. Riker, 46 Cedar St., New York.

CHLORIDE OF ZINC.

Berlin Aniline Works, 213 Water St., N. Y.
J. A. & W. Bird & Co., 88 Wall St., N. Y.
Cochrane Chemical Co., 55 Kilby St., Boston.
General Chem. Co., 25 Broad St., New York.
Grasselli Chemical Co., Cleveland and N. Y.
A. Klipstein & Co., 122 Pearl St., New York.
Roessler & Hasslacher Chemical Co., 100 William St., New York.

CHLOROFORM.

Albany Chemical Co., Albany, N. Y.
Mallinckrodt Chemical Works, St. Louis, Mo.
Merck & Co., New York.
N. Y. Quinine & Chemical Works, New York.
Powers & Weightman, Philadelphia.
Roessler & Hasslacher Chemical Co., 100 William St., New York.

COAL TAR OILS.

Barrett Mfg. Co., Philadelphia.
Wegelin & Wilckes Black Mfg. Co., 50 Cliff St., New York.

COAL TAR PRODUCTS.

F. E. Atteaux & Co., 174-176 Purchase St. Boston.
Barrett Mfg. Co., Philadelphia.
J. A. & W. Bird & Co., 88 Wall St., N. Y.
A. Klipstein & Co., 122 Pearl St., New York.
Victor Koechl & Co., 122 Hudson St., N. Y.
Kuttroff, Pickhardt & Co., 128 Duane St., N.Y.
Roessler & Hasslacher Chemical Co., 100 William St., New York.
Schoellkopf, Hartford & Hanna Co., Buffalo and New York.
The Selling Company, 182-184 Front St., N. Y.
Wegelin & Wilckes Black Mfg. Co., 50 Cliff St., New York.

COCAINE.

C. Bischoff & Co., 87 Park Place, New York.
Mallinckrodt Chemical Works, St. Louis, Mo.
Merck & Co., New York.
N. Y. Quinine & Chemical Works, New York.
R. W. Phair & Co., 16 Platt St., New York.
Roessler & Hasslacher Chemical Co., 100 William St., New York.
Schieffelin & Co., 172 William St., New York.

COCOANUT OIL.

Fuerst Bros. & Co., 2 Stone St., New York.
Edw. Hill's Son & Co., 25-27 Cedar St., N.Y.
James Lee & Co., 76 William St., New York.
Paterson, Boardman & Co., 133 Front St., N.Y.
Welch & Welch, 121 Broad St., New York.
Isaac Winkler & Co., Cincinnati, O.

COD LIVER OIL.

A. W. Dodd & Co., Gloucester, Mass.
Isdahl & Co., Bergen, Norway.
Otto S. Jervell, Aalesund, Norway.
Lehn & Fink, 120 William St., New York.
Geo. H. Leonard & Co., Boston.
McKesson & Robbins, New York.
Schieffelin & Co., 172 William St., New York

COLD WATER PAINT.

The Atlas Co., Lincoln, N. J.
J. A. & W. Bird Co., 88 Wall St., N. Y.
Columbia Refining Co., 32 B'way, New York.
Muralo Co., New Brighton, S. I., N. Y.

COPPERAS.

American Steel & Wire Co., Chicago and N. Y.
General Chem. Co., 25 Broad St., New York.
Harshaw, Fuller & Goodwin Co., Cleveland and New York.
Penna. Salt Mfg. Co., 115 Chestnut St., Phila.
Powers & Weightman, Philadelphia.
S. P. Wetherill Co., New York & Philadelphia.
C. K. Williams & Co., Easton, Pa.

CORN OIL.

Elbert & Gardner, 11 Broadway, New York.
National Starch Co., 24 State St., New York.
P. C. Vis & Co., Amsterdam, Holland.
Welch & Welch, 121 Broad St., New York.

COTTON SEED OIL.

American Cotton Oil Co., 27 Beaver St., N. Y.
Elbert & Gardner, 11 Broadway, New York.
Globe Refinery Co., Louisville, Ky.
Kentucky Refining Co., Louisville, Ky.
Louisville Cotton Oil Co., Louisville, Ky.
Proctor & Gamble Co., Cincinnati, O.
Southern Cotton Oil Co., 11 Broadway, N. Y.
Trinity Cotton Oil Co., Dallas, Tex.
P. C. Vis & Co., Amsterdam, Holland.
Welch & Welch, 121 Broad St., New York.

CREAM TARTAR.

American Tartar Co., 577 Smith St., Brooklyn.
Chas. Pfizer & Co., New York.
Tartar Chemical Co., 47 Cedar St., New York.

CRUDE DRUGS.

Dodge & Olcott, 86 William St., New York.
E. Fassbender & Co., Rotterdam, Holland.
J. L. Hopkins & Co., 100 William St., N. Y.
Lehn & Fink, 120 William St., New York.
McKesson & Robbins, 92 Maiden Lane, N. Y.
Murray & Nickell Mfg. Co., 155 W. Polk St., Chicago, Ill.
Parke, Davis & Co., Detroit, Mich., and 92 Maiden Lane, N. Y.
Schieffelin & Co., New York.
Roger Schultz & Co., Trieste, Austria.
Thurston & Braidich, 128 William St., N. Y.

DEGRAS.

A. Klipstein & Co., 122 Pearl St., New York.
Geo. H. Leonard & Co., Boston.
Alex. P. Mende & Co., 536 W. 14th St., N. Y.
Benj. R. Vickers & Sons, Leeds, England.
Louis de Vriendt, Antwerp, Belgium.

DOUBLE MANURE SALT.

German Kali Works, 93 Nassau St., New York.
Hamilton H. Salmon & Co., 88 Wall St., N. Y.

DRUG MILLERS.

J. L. Hopkins & Co., 100 William St., N. Y
Murray & Nickell Mfg. Co., 155 W. Polk St. Chicago, Ill.

DRY COLORS.

Acme White Lead & Color Wks., Detroit, Mich.
American Steel & Wire Co., New York.
The Atlas Co., Lincoln, N. J.
Lewis Berger & Sons, 100 William St., N. Y.
J. A. & W. Bird Co., 88 Wall St., N. Y.
Geo. G. Blackwell, Sons & Co., Ltd., The Albany, Liverpool, Eng.

DRY COLORS (Continued.)

Cawley, Clark & Co., Newark, N. J.
Clarke & White Co., 106 Fulton St., N. Y.
The Cleveland Color Co., Cleveland, O.
Gabriel & Schall, 205 Pearl St., New York.
Harrison Bros. & Co., Inc., Philadelphia.
A. Klipstein & Co., 122 Pearl St., New York.
Kuttroff, Pickhardt & Co., 128 Duane St., N.Y.
Bruno Lampel, Cologne, Ehrenfeld-on-the-Rhine, Germany.
Merrimac Chem. Co., 75-77 Broad St., Boston.
A. W. Smith, Ltd., 79 Duane St., New York.
J. Lee Smith & Co., 59 Frankfort St., N. Y.
Toch Bros., 468 W. Broadway, N. Y.
R. J. Waddell & Co., 52 Beekman St., N. Y.
The S. P. Wetherill Co., New York & Phila.
C. K. Williams & Co., Easton, Pa.

DYESTUFFS.

Arnold, Hoffman & Co., Providence, R. I.
F. E. Atteaux & Co., 174-176 Purchase St., Boston.
J. A. & W. Bird & Co., 88 Wall St., N. Y.
Cassela Color Co., 182 Front St., N. Y.
E. Fassbender & Co., Rotterdam, Holland.
Innis & Co., Poughkeepsie and New York.
A. Klipstein & Co., 122 Pearl St., New York.
Victor Koechl & Co., 122 Hudson St., N. Y.
Kuttroff, Pickhardt & Co., 128 Duane St., N.Y.
John D. Lewis, 304 Exchange Pl., Providence.
Alex. P. Mende & Co., 536 W. 14th St., N. Y.
Roger Schultz & Co., Trieste, Austria.
Schoellkopf, Hartford & Hanna Co., Buffalo and New York.

DYEWOOD EXTRACTS.

F. E. Atteaux & Co., 174-176 Purchase St., Boston.
Howe, Fuller & Trunkett, 92 State St., Boston.
A. Klipstein & Co., 122 Pearl St., New York.
Kuttroff, Pickhardt & Co., 128 Duane St., N.Y.
John D. Lewis, 3 & 4 Exchange Pl., Providence.
Geo. H. Leonard & Co., Boston.
The Sharpless Dyewood Extract Co., 648-651 Bourse, Philadelphia.

EGG ALBUMEN.

A. Klipstein & Co., 122 Pearl St., New York.
Zinkeisen & Co., New York and Chicago.

ESSENTIAL OILS.

Arthur A. Barrett, Messina, Sicily.
Antoine Chiris, 18-20 Platt St., New York.
Dodge & Olcott, 86 William St., New York.
P. R. Dreyer, 68 Broad St., New York.
Fuerst Bros. & Co., 2 Stone St., New York.
Fischer Chem. Importing Co., 14 Platt St., New York.
D. W. Hutchison, 5 Cedar St., New York.
Lehn & Fink, 120 William St., New York.
Magnus & Lauer, 92 Pearl St., New York.
McKesson & Robbins, New York.
O. Porsch Chem. Co., 62 Maiden Lane, N. Y.
F. M. Rudd, Bronson, Mich.
Schieffelin & Co., 172 William St., New York
Sozio & Andrioli, Grasse, France.
A. M. Todd, Kalamazoo, Mich.
Tombarel Freres, Grasse, France.
Zinkeisen & Co., New York and Chicago.

ETHERS.

Chas. Cooper & Co., 194 Worth St., New York.
Geo. A. Erkenbrach, 115 Maiden Lane, N. Y.
Powers & Weightman, Philadelphia.
Zinkeisen & Co., New York and Chicago.

FERTILIZER MATERIALS.

Chilian Nitrate Works, 12 John St., N. Y.
Lister's Agri. Chem. Works, 26 B'way, N. Y.
German Kali Works, 93 Nassau St., New York.
H. H. Salmon & Co., 88 Wall St., New York.

FLAXSEED (GROUND.)

J. A. & W. Bird & Co., 88 Wall St., N. Y.

FORMALDEHYDE.

J. A. & W. Bird & Co., 88 Wall St., N. Y.
Fries Bros., 92 Reade St., New York.
A. Klipstein & Co., 122 Pearl St., New York.
Victor Koechl & Co., 122 Hudson St., N. Y.
Merck & Co., New York.
Roessler & Hasslacher Chemical Co., 100 William St., New York.

FULLER'S EARTH.

Fuerst Bros. & Co., 2 Stone St., New York.

FUSEL OIL.

Albany Chemical Co., Albany, N. Y.
Maas & Waldstein, 107 Murray St., New York.
Schoellkopf, Hartford & Hanna Co., Buffalo and New York.
Louis de Vriendt, Antwerp, Belgium.

GASOLENE.

Crew Levick Company, Philadelphia.
Standard Oil Co., 26 Broadway, New York.
The Paragon Refining Co., Toledo.

GELATINE.

Michigan Carbon Works, Detroit.
Zinkeisen & Co., New York and Chicago. (Imported.)

GLAUBER SALTS.

The Cochrane Chem. Co., 55 Kilby St., Boston.
General Chem. Co., 25 Broad St., New York.
Grasselli Chemical Co., Cleveland and N. Y.
Wm. F. Jobbins, Aurora, Ill.
Merrimac Chem. Co., 75-77 Broad St., Boston.
Thomsen Chemical Co., Baltimore, Md.
John C. Wiarda & Co., Brooklyn, N. Y.

GLUE.

Arabol Mfg. Co., 155 William St., New York.
Lister's Agri. Chem. Works, 26 B'way, N. Y.
Michigan Carbon Works, Detroit.
Rogers & Pyatt, 78 Maiden Lane, New York.

GLYCERINE.

J. A. & W. Bird & Co., 88 Wall St., N. Y.
Harshaw, Fuller & Goodwin Co., Cleveland, O.
Grasselli Chemical Co., Cleveland and N. Y.
Wm. F. Jobbins, Aurora, Ill.
A. Klipstein & Co., 122 Pearl St., New York.
Proctor & Gamble Co., Cincinnati, O.
Schraneck & Co., 1 Place Boieldieu, Paris.
Louis de Vriendt, Antwerp, Belgium.

GUMS.

Arnold, Hoffmann & Co., Providence, R. I.
Herm. A. Holstein, Constantinople, Turkey.
Alfred A. Keun & Co., Smyrna, Turkey.
Lehn & Fink, 120 William St., New York.
McKesson & Robbins, 91 Fulton St., New York.
Parke, Davis & Co., 90 Maiden Lane, N. Y.
Roger Schultz & Co., Trieste, Austria.
Schieffelin & Co., 172 William St., New York.
D. Steengrafe, 56 Pine St., New York.
Thurston & Braidich, 128 William St., N. Y.
Zinkeisen & Co., New York and Chicago.

HYDROFLUORIC ACID.

General Chem. Co., 25 Broad St., New York.
Harshaw, Fuller & Goodwin Co., Cleveland.
Thomsen Chemical Co., Baltimore, Md.
John C. Wiarda & Co., Brooklyn, N. Y.

HYPOSULPHITE OF SODA.

F. E. Atteaux & Co., Boston, Mass.
Cochrane Chemical Co., 55 Kilby St., Boston.
Grasseli Chemical Co., Cleveland and N. Y.
A. Klipstein & Co., 122 Pearl St., New York
Kuttroff, Pickhardt & Co., 128 Duane St., N.Y.
James Lee & Co., 76 William St, New York.
Merrimac Chem. Co., 75-77 Broad St., Boston.
Roessler & Hasslacher Chemical Co., 100 William St., New York.
The Selling Company, 182 Front St., New York.
Thomsen Chemical Co., Baltimore, Md.

ILLUMINATING OILS.

Atlantic Refining Co., Reading.
Crew Levick Co., Philadelphia.
Freedom Oil Works Co., Freedom, Pa.
Standard Oil Co., New York.
The Paragon Refining Co., Toledo, O.
Union Petroleum Co., 138 S. Fourth St., Phila.

INDIGO.

Arnold, Hoffman & Co., Inc., Providence, R. I.
General Chemical Co., 25 Broad St., New York.
Howe, Fuller & Trunkett, 92 State St., Boston.
A. Klipstein & Co., 122 Pearl St., New York.
Victor Koechl & Co., 122 Hudson St., N. Y.
Kuttroff, Pickhardt & Co., 128 Duane St., N. Y.
Taylor & Barker, Lowell, Mass.

LAMP WICKS.

Fletcher Manufacturing Co., Providence, R. I.
Standard Oil Co., 26 Broadway, New York.

LAMP BLACK.

Bihn & Wolff Co., Bridesburg, Phila., Pa.
Binney & Smith, 81-83 Fulton St., New York.
Seaver & Co., 120 Milk St., Boston.
D. F. Tiemann & Co 44 Duane St., N. Y.
Wegelin & Wilckes Black Mfg. Co., 50 Cliff St., New York.

LEAD PIPE AND SHEET LEAD.

Atlantic White Lead and Linseed Oil Co., 100 William St., New York.
Colwell Lead Co., 63 Center St., N. Y.
Union Lead & Oil Co., 32 Liberty St., N. Y.

LINSEED OIL.

American Linseed Co., 100 William St., N. Y.
Atlantic White Lead and Linseed Oil Co., 100 William St., New York.
Euston & Co., Chicago.
National Lead Co., 100 William St., New York.
Spencer Kellogg, Buffalo, N. Y.
Thresher Varnish Co., Dayton, O.
A. L. Webb & Sons, Baltimore, Md.

LITHARGE.

Electrical Lead Reduction Co., Bourse Bldg., Philadelphia, and 71 Broadway, New York.

LITHOPONE.

Grasseli Chemical Co., Cleveland and N. Y.
Gabriel & Schall, 205 Pearl St., New York.

LUBRICATING OILS.

Crew Levick Co., Philadelphia.
Freedom Oil Works Co., Freedom, Pa.
Gelena Oil Company, Franklin, Pa.
Signal Oil Co., Franklin, Pa.

MANGANESE.

Geo. G. Blackwell, Sons & Co., Ltd., The Albany, Liverpool, Eng.
Harshaw, Fuller & Goodwin Co., Cleveland and New York.
Kendall & Flick, Washington, D. C.
A. Klipstein & Co., 122 Pearl St., New York.
Jno. S. Lamson & Bro., 77 Maiden Lane, N. Y.
James Lee & Co., 76 William St., New York.
Roessler & Hasslacher Chemical Co., 100 William St., New York.
John C .Wiarda & Co., Brooklyn, N. Y.

MANUFACTURING CHEMISTS.

E. J .Beggs & Co., 101 Beekman St., N. Y.
Columbia Chem. Wks., 43 Sedgwick St., B'klyn.
Chas. Cooper Co., 194 Worth St., New York.
Geo. A. Erkenbrach, 115 Maiden Lane, N. Y.
Fries Bros., 92 Reade St., New York.
General Chemical Co., 25 Broad St., New York.
Grasseli Chemical Co., Cleveland and N. Y.
Harrison Bros. Co., Inc., Philadelphia, Pa.
Harshaw, Fuller & Goodwin Co., Cleveland and New York.
A. Klipstein & Co., 122 Pearl St., New York.
Lehn & Fink, 120 William St., New York.
McKesson & Robbins, New York.
Merck & Co., New York.
Parke, Davis & Co., New York and Detroit.
Chas. Pfizer & Co., New York.
Roessler & Hasslacher Chemical Co., 100 William St., New York.
Rosengarten & Sons, Philadelphia.
Schieffelin & Co., 172 William St., New York.
The Selling Company, 182-184 Front St., N. Y.
John C. Wiarda & Co., Brooklyn, N. Y.

MENHADEN OIL.

Geo. H. Leonard & Co., Boston.
W. A. Robinson & Co., New Bedford, Mass.
Frank L. Young & Kimball, New Bedford, Mass.

MISCELLANEOUS.

N. J. Title Guarantee & Trust Co., Jersey City N. J.
N. Y. Central & Hudson River R. R.

MORPHINE.

Merck & Co., New York.
N. Y. Quinine & Chemical Works, New York.
Powers & Weightman, Philadelphia.
Rosengarten & Sons, Philadelphia.
Zimmer & Co., Frankfort-on-Main, Germany.

MURIATIC ACID.

Cochrane Chem. Co., 55 Kilby St., Boston.
Chas. Cooper & Co., 194 Worth St., New York.
General Chem. Co., 25 Broad St., New York.
Grasseli Chemical Co., Cleveland and N. Y.
Merrimac Chem. Co., 75-77 Broad St., Boston
Penna. Salt Mfg. Co., 115 Chestnut St., Phila
Powers & Weightman, Philadelphia.
Thomsen Chemical Co., Baltimore, Md.

MYRBANE.

Barrett Mfg. Co., Philadelphia.
Berlin Aniline Works, 72 Front St., New York.
The Selling Company, New York.

NAPHTHA.

Barrett Mfg. Co., Philadelphia.
Crew Levick Company, Philadelphia.
Standard Oil Co., New York.
The Paragon Refining Co., Toledo, O.

NAPHTHALINE.

Barrett Mfg. Co., Philadelphia.
Schoelikopf, Hartford & Hanna Co., Buffalo and New York.
Wegelin & Wilckes Black Mfg. Co., 50 Cliff St., New York.

NAVAL STORES.

Florida Naval Stores & Com. Co., Jacksonville, Fla.

NITRATE OF SODA.

Battelle & Renwick, 163 Front St., New York.
Chilean Nitrate Works, 12 John St., N. Y.
The Geo. F. Taylor Co., 80 Pine St., New York.

NITRIC ACID.

Chas. Cooper & Co., 194 Worth St., New York.
The Cochrane Chem. Co., 55 Kilby St., Boston.
General Chemical Co., 25 Broad St., New York.
Grasseli Chemical Co., Cleveland and N. Y.
Harrison Bros. & Co., Inc., Philadelphia, Pa.
Merrimac Chem. Co., 75-77 Broad St., Boston.
Penna. Salt Mfg. Co., 115 Chestnut St., Phila.
Powers & Weightman, Philadelphia.
Thomsen Chemical Co., Baltimore, Md.

OCHER.

The Atlas Co., Lincoln, N. J.
Bass Paint Co. 108 Fulton St., New York.
J. A. & W. Bird & Co., 88 Wall St., N. Y.
Bruno Lampel, Cologne, Ehrenfeld-on-the-Rhine, Germany.
F. A. Reichard, 132 Nassau St., New York.
J. Lee Smith & Co., 59 Frankfort St., N. Y.
D. F. Tiemann & Co., 44 Duane St., New York.
C. K. Williams & Co., Easton, Pa.

OIL OF VITRIOL (Sulphuric Acid.)

Cochrane Chemical Co., 55 Kilby St., Boston.
Chas. Cooper & Co., 194 Worth St., New York.
General Chem. Co., 608 Bourse, Philadelphia.
Grasseli Chemical Co., Cleveland and N. Y.
Harrison Bros. & Co., Inc., Philadelphia, Pa.
Kuttroff, Pickhardt & Co., 128 Duane St., N. Y.
Merrimac Chem. Co., 75-77 Broad St., Boston.
Penna. Salt Mfg. Co., 115 Chestnut St., Phila.
Powers & Weightman, Philadelphia.
T. P. Shepard & Co., Providence, R. I.
Thomsen Chemical Co., Baltimore, Md.

OLIVE OIL.

A. W. Dodd & Co., Gloucester, Mass.
Fuerst Bros. & Co., 2 Stone St., New York.
Lehn & Fink, 120 William St., New York.
Geo. H. Leonard & Co., Boston.
Schieffelin & Co., 172 William St., New York.
Welch & Welch, 121 Broad St., New York.

OPIUM.

Edw. Hill's Son & Co., 25-27 Cedar St., N. Y.
Herm. A. Hoistein, Constantinople, Turkey.
Alfred A. Kuen & Co., Smyrna, Turkey.
A. Lavino & Co., Smyrna (Asia Minor).
Merck & Co., New York.
N. Y. Quinine & Chemical Works, New York.
Powers & Weightman, New York and Phila.
Rosengarten & Sons, Philadelphia.
Schieffelin & Co., 172 William St., New York
Thurston & Braidich, 128 William St., N. Y.

OXIDE OF ZINC.

J. A. & W. Bird & Co., 88 Wall St., N. Y.
Gabriel & Schall, 205 Pearl St., New York.
New Jersey Zinc Co., 11 Broadway, New York
J. Lee Smith & Co., 59 Frankfort St., N. Y.
S. P. Wetherell Co., New York and Phila.

PALM OIL.

Elbert & Gardner, 11 Broadway, New York.
James Lee & Co., 76 William st., New York.
Welch & Welch, 121 Broad St., New York.

PAINTS.

Acme White Lead & Color Wks., Detroit, Mich.
Bass Paint Co., 108 Fulton St., New York.
Clarke & White Co., 106 Fulton St., N. Y.
Darby-McQuade Paint Co., 416 Marcy Ave., Brooklyn, N. Y.
Eagle Paint & Varnish Works, Pittsburgh, Pa.
Samuel H. French & Co., Philadelphia.
Harrison Bros. & Co., Philadelphia.
John Lucas & Co., Philadelphia.
John W. Masury & Son, New York.
Benj. Moore & Co., Brooklyn, N. Y.
Pittsburgh Plate Glass Co., Pittsburgh, Pa.
J. Lee Smith & Co., 59 Frankfort St., N. Y.
D. F. Tieman & Co., 44 Duane St., N. Y.
U. S. Smelting Co., Canon City, Colo.
S. P. Wetherell Co., New York and Phila.
C. K. Williams & Co., Easton, Pa.

PARAFFINE OIL.

Manufacturers' Paraffine Co., Chester, Pa.
Standard Oil Co., New York.
Tidewater Oil Co., New York.

PARAFFINE WAX.

Crew, Levick Co., Philadelphia.
Manufacturers' Paraffine Co., Chester, Pa.
Smith & Nichols, 145-147 Front St., New York.
Standard Oil Co., 408 W. 14th St., New York.
Tidewater Oil Co., 12 Broadway, New York.

PETROLEUM.

Atlantic Refining Co., Franklin, Pa.
Borne, Scrymser Co., 80 South St., New York.
Crew, Levick Co., Philadelphia.
Standard Oil Co., New York.
The Paragon Refining Co., Toledo, O.
Union Petroleum Co., 138 S. Fourth St., Phila.
Waters-Pierce Oil Co., 816 Olive St., St. Louis.

PHOSPHORUS.

General Chem. Co., 608 Bourse, Philadelphia.

PRUSSIATE OF POTASH.

Baltimore Chrome Works, Baltimore, Md.
Fuerst Bros. & Co., 2 Stone St., New York.
A. Klipstein & Co., 122 Pearl St., New York.
Kuttroff, Pickhardt & Co., 128 Duane St., N. Y.
Fred L. Lavanburg, 100 William St., N. Y.
The Roessler & Hasslacher Chemical Co., 100 William St., New York.
Louis de Vriendt, Antwerp, Belgium.

PLUMBAGO.

Joseph Dixon Crucible Co., Jersey City, N. J.
Paterson, Boardman & Co., 133 Front St., N. Y.
Wegelin & Wilckes Black Mfg. Co., 50 Cliff St., New York.

PUTTY.

E. S. Belknap, McSherry & Moran, 286 Monroe St., N. Y.

QUININE.

Merck & Co., New York.
N. Y. Quinine & Chemical Works, 114 William St., New York.
R. W. Phair & Co., 16 Platt St., New York.
Powers & Weightman, Philadelphia.
Roessler & Hasslacher Chem. Co., 100 William St., New York.
Rosengarten & Sons, Philadelphia, Pa.

ROSIN.

Florida Naval Stores & Commission Co., Jacksonville, Fla.
A. L. Webb & Sons, Baltimore, Md.

ROTTEN STONE.

Geo. G. Blackwell, Sons & Co., Ltd., The Albany, Liverpool, Eng.
R. J. Waddell & Co., 52 Beekman St., N. Y.

SAL AMMONIAC.

J. A. & W. Bird & Co., 88 Wall St., N. Y.
Cochrane Chemical Co., 55 Kilby St., Boston.
Grasseli Chemical Co., Cleveland and N. Y.
A. Klipstein & Co., 122 Pearl St., New York.
R. W. Phair & Co., 16 Platt St., New York.
The Roessler & Hasslacher Chemical Co., 100 William St., New York.
Thomsen Chemical Co., Baltimore, Md.
Louis de Vriendt, Antwerp, Belgium.

SAL SODA.

Church & Dwight Co., 63-65 Wall St., N. Y.
Diamond Soda Works, Milwaukee, Wis.
Ferguson Bros., Philadelphia.
Grasseli Chemical Co., Cleveland and N. Y.
Hollingsworth & Peterson, 653 Bourse, Phila.
James Lee & Co., 76 William St., New York.
Penna. Salt Mfg. Co., 115 Chestnut St., Phila.
Thomsen Chemical Co., Baltimore, Md.
Welch & Welch, 121 Broad St., New York.
John C. Wiarda & Co., Brooklyn, N. Y.
Wing & Evans, 22 William St., New York.

SALT CAKE.

General Chem. Co., 25 Broad St., New York.
Grasseli Chemical Co., Cleveland and N. Y.

SALTPETER.

Battelle & Renwick, 163 Front St., New York.

SEEDS.

J. Fritzlin, Amsterdam.
Les Fils de F. Bailadur, Smyrna (Asia Minor).
Planchon Ainee, Marseilles, France.
Roger Schultz & Co., Trieste, Austria.

SHELLAC.

Berry Brothers, Ltd., Detroit, Mich.
New York Shellac Co., 229 Pearl St., N. Y.
Rogers & Pyatt, 78 Maiden Lane, New York.

SODA ASH.

Arnold, Hoffman & Co., Providence.
Edw. Hill's Son & Co., 25 Cedar St., N. Y.
A. Klipstein & Co., 122 Pearl St., New York.
James Lee & Co., 76 William St., New York.
Thomsen Chemical Co., Baltimore Md.
Welch & Welch, 121 Broad St., New York.
Wing & Evans, 22 William St., New York.
Isaac Winkler & Bro., Cincinnati, O.

SOLUBLE COTTON.

Billings, Clapp Co., Boston, Mass.
Chas. Cooper & Co., 194 Worth St., New York.
Geo. A. Erkenbrach, 115 Maiden Lane, N. Y.
Maas & Waldstein, 107 Murray St., New York.

STRONTIA NITRATE.

R. W. Phair & Co., 16 Platt St., New York.
Rogers & Pyatt, 78 Maiden Lane, New York.

STONEWARE.

F. Behrend, 54 Front St., New York.
O. Porsch Chemical Co., 62 Maiden Lane, N. Y.
Arthur J. Weeks, Akron, O.

STRYCHNINE.

Merck & Co., New York.
N. Y. Quinine & Chemical Works, New York.
Powers & Weightman, Philadelphia.

SUGAR OF MILK.

Merck & Co., New York.
Schoelikopf, Hartford & Hanna Co., Buffalo and New York.

SULPHATE OF AMMONIA.

Cochrane Chemical Co., 55 Kilby St., Boston.
Ferguson Bros., Philadelphia.
Lister's Agri. Chem. Works, 26 B'way, N. Y.

SULPHATE OF SODA.

Cochrane Chem. Co., 55 Kilby St., Boston.
General Chemical Co., 25 Broad St., New York.
Merrimac Chem. Co., 75-77 Broad St., Boston.

SULPHUR AND BRIMSTONE.

Battelle & Renwick, 163 Front St., New York.
General Chemical Co., 25 Broad St., New York.
I. & S. C. White Co., 22 Burling Slip, N. Y.

TALC.

The Atlas Co., Lincoln, N. J.
Geo. G. Blackwell, Sons & Co., Ltd., The Albany, Liverpool, Eng.
Carolina Mineral Co., 140 Maiden Lane, N. Y.
Clarke & White Co., 106 Fulton St., N. Y.
U. S. Mineral Co., 51 Stone St., N. Y.
C. K. Williams & Co., Easton, Pa.

TALLOW.

Welch & Welch, 121 Broad St., New York.

TARTARIC ACID.

American Tartar Co., 577 Smith St., Brooklyn
Chas. Pfizer & Co., New York.
Powers & Weightman, Philadelphia.
Tartar Chemical Co., 47 Cedar St., New York.

TIN CANS.

American Can Co., 11 Broadway, New York.

TURPENTINE.

Florida Naval Stores & Comm'n Co., Jacksonville, Fla.
Standard Oil Co., New York.
A. L. Webb & Sons, Baltimore, Md.

VANILLA BEANS.

Dodge & Olcott, 86 William St., New York.
Thurston & Braidich, 128 William St., N. Y.

VANILLIN.

C. Bischoff & Co., 88 Park Place, New York.
Fries Bros., 92 Reade St., New York.
A. Klipstein & Co., 122 Pearl St., New York.
Magnus & Lauer, 92 Pearl St., New York.
O. Porsch Chem. Co., 62 Maiden Lane, N. Y.

VARNISH.

Acme White Lead & Color Wks., Detroit, Mich.
Berry Brothers, Ltd., Detroit, Mich.
Harrison Bros. & Co., Inc., Philadelphia.
John W. Masury & Son, New York.
Pittsburgh Plate Glass Co., Pittsburgh, Pa.
Pratt & Lambert, Long Island City, N. Y.
Thresher Varnish Co., Dayton, O.
Wm. Waterall & Co., Philadelphia.

VARNISH GUMS.

Edw. Hill's Son & Co., 27 Cedar St., N. Y.
John S. Lamson & Bro., 77 Maiden Lane, N. Y.
Paterson, Boardman & Co., 133 Front St., N. Y.
Rogers & Pyatt, 80 Maiden Lane, New York.
S. Winterbourne & Co., 94 Pine St., New York.
Louis de Vriendt, Antwerp, Belgium.

WHITE LEAD.

Atlantic White Lead and Linseed Oil Co., 100 William St., New York.
Darby-McQuade Paint Co., 416 Marcy Ave., Brooklyn, N. Y.
Samuel H. French & Co., Philadelphia.
Harrison Bros. & Co., Inc., Philadelphia.
National Lead Co., 100 William St., New York.
Wm. J. Matheson & Co., Ltd., 182 Front St., New York.
J. Lee Smith & Co., 59 Frankfort St., N. Y.
Union Lead & Oil Co., 32 Liberty St., N. Y.
Wm. Waterall & Co., Philadelphia.

WAX.

W. H. Bowdlear & Co., Boston.
Smith & Nichols, 145 Front St., New York.

WINDOW GLASS.

American Window Glass Co., Pittsburgh, Pa.
Pittsburgh Plate Glass Co., Pittsburgh, Pa.

WOOD ALCOHOL.

Chas. Cooper & Co., 194 Worth St., New York.
Manhattan Spirit Co., Buffalo, N. Y.
Merrimac Chem. Co., 75-77 Broad St., Boston.
A. L. Webb & Sons, Baltimore.

ZINC.

The New Jersey Zinc Co., 11 B'way, N. Y.

MACHINERY MANUFACTURERS.

AUTOMATIC PRESSES.

American Process Co., 62 William St., N. Y.

BOLTING CLOTH.

P. F. Campbell, 55 Laurel St., Philadelphia.
Charles Mill Supply Co., 15 S. William St., N. Y.

BOLTING MACHINERY.

C. O. Bartlett & Snow Co., Cleveland, O.
P. F. Campbell, 55 Laurel St., Philadelphia.
Faust Machine Works, Brooklyn, N. Y.
M. A. Nebel, 72 Grand Ave., Brooklyn, N. Y.

BURR STONES.

J. R. Alsing Co., 73 Guernsey St., Brooklyn.
C. O. Bartlett & Snow Co., Cleveland, O.
P. F. Campbell, 55 Laurel St., Philadelphia.
Charles Mill Supply Co., 15 S. William St., N.Y.
Bruyn Hasbrouck, New Paltz, N. Y.
M. A. Nebel, 72 Grand Ave., Brooklyn, N. Y.

CALDRONS.

D. R. Sperry & Co., Batavia, Ill.

CEMENT MACHINERY.

J. R. Alsing Co., 73 Guernsey St., Brooklyn.
C. O. Bartlett & Snow Co., Cleveland, O.
P. F. Campbell, 55 Laurel St., Philadelphia.
Charles Mill Supply Co., 15 S. William St., N.Y.
M. A. Nebel, 72 Grand Ave., Brooklyn, N. Y.

CENTRIFUGAL MILLS.

Am. Tool & Machine Co., 109 Beach St., Boston.
P. F. Campbell, 55 Laurel St., Philadelphia.

COOKERS.

American Process Co., 62 William St., N. Y.

DIGESTERS.

American Process Co., 62 William St., N. Y.

DISINTEGRATORS.

J. R. Alsing Co., 73 Guernsey St., Brooklyn.
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WANT COLUMN (page 22).

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NEW YORK, JULY 7, 1902.

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ADULTERATED LINSEED OIL.

As is usually the case when the price of a staple article in general use ranges above the average, unscrupulous parties have latterly resorted to the adulteration and mixing of linseed oil, claiming the same to be pure, resorting to all sorts of subterfuges and misstatements to influence the purchasers. The bait held out is, of course, the comparatively low price at which these adulterated oils are offered, and there are many buyers and users of linseed oil who are not over scrupulous when they see an additional profit. There is one point that buyers of adulterated linseed oil, knowing or having reason to suspect the oil offered to be such, fail to consider. It is that the adulterated or mixed oils offered at four or five cents per gallon under the regular price of the pure oil are really dear. The mixers make a large profit by reason of the low cost of the adulterants for which the buyer really pays a high price. Thus, if a dealer is disposed to buy adulterated oil he pays about a hundred per cent. advance on the adulterants, and, if he is disposed to be dishonest, had far better do his own mixing, and possibly his own conscience would prove less elastic than that of the unscrupulous adulterator who appears to be pressing his product for sale at the present time with unusual vigor. It is the honest buyer, however, who needs to be warned at the present time. The mixers of linseed oil with fish oils, mineral oils and other cheap oils resort to all sorts of devices and statements to deceive the purchasers, and these should be on their guard against the class of dealers offering oil below the regular prices at which pure oil is quoted by reputable and well-known crushers. With the question of the advisability of using substitutes the user must decide for himself, but the fact that pure linseed oil is universally regarded and acknowledged as the best paint oil makes the adulteration and misrepresentation profitable to a considerable number of unscrupulous persons who, in some cases, do not stop short of sailing under colors so closely resembling the names of well-known and honorable crushers and dealers in pure linseed oil as to deceive the unwary buyer. The high price of linseed oil at the present time has stimulated the sellers of substitutes to unusual efforts, but, when no deception is practiced, the business is a legitimate one, though the claims of "just as good" and others should be judged on the basis of the experience of the consumers.

In several States what are known as pure linseed oil laws stand on the statute books, but they are, apparently, entirely ignored. It requires strenuous efforts in some cases to induce the legislators to pass such laws, and it was believed that their enactment would at least check the evil if it did not entirely suppress the practice. But it seems that those who were earnest in their endeavors to secure legislation to protect the honest manufacturer and dealer have relaxed their efforts for the suppression of the practice of adulteration, probably under the belief that the laws would be enforced by the State officials. Examples should be made of some of the more persistent adulterators, and the infliction of the penalties provided, we believe, would do much toward deterring others and possibly by a continued and systematic prosecution of offenders the practice, now altogether too prevalent, could be broken up.

THE COD LIVER OIL SHORTAGE.

Cable advices from Norway to hand this week, give the final returns of the Norwegian cod fishing and the production of medicinal cod liver oil. The figures show a total production of 13,800 hectoliters of oil or 9,000 hectoliters less than was produced last season. The total outturn of oil this year is divided among the various fisheries as follows:—Lofoten, 9,600 hectoliters; Sondmore, 2,000 hectoliters, and Finmarken, 2,200 hectoliters. The following figures show the total amount of oil produced in Norway during each of the ten seasons from 1893 to 1902:—

Year.	Hectoliters.	Year.	Hectoliters.
1902	13,800	1897	24,900
1901	22,800	1896	19,400
1900	21,200	1895	16,000
1899	24,100	1894	18,200
1898	18,500	1893	23,700

These figures prove conclusively that the reports of a short crop have not been exaggerated, and that the present high prices for cod liver oil are fully warranted by conditions. The prediction made by an authority in this market that prices will go as high as fifty dollars a barrel does not seem to us to be unreasonable, in view of the short supply and the added fact that no material quantity of oil was carried over from last season. When it is taken into consideration that the world's average annual consumption of cod liver oil is between 25,000 and 30,000 barrels the shortness of the crop will be appreciated.

HEAVY CINCHONA BARK SHIPMENTS.

The shipments of chinchona bark from Java to Europe during the month of June were the heaviest of the year, aggregating about 600,000 kilograms, as compared with 522,000 kilograms shipped during May. The figures printed below furnish material for comparison, showing the amount of bark shipped during each month from January, 1900, to June, of this year:—

	1902. Kilos.	1901. Kilos.	1900. Kilos.
January	470,000	500,000	370,000
February	260,000	374,000	320,000
March	345,000	437,000	325,000
April	500,000	400,000	265,000
May	522,000	373,000	408,000
June	600,000	524,000	433,000
July	.....	620,000	314,000
August	.....	525,000	488,500
September	.....	616,200	683,000
October	.....	788,000	550,000
November	.....	592,500	745,000
December	.....	650,000	550,000

Owing to the present easy and extremely dull condition of the quinine market here, the situation was not visibly affected by the heavy shipments, as it might have been had more interest been shown in the matter. This, however, is still lacking, there being no more than a light retail demand at present.

Since the last issue of the Reporter, in which was published a table showing the imports of quinine salts, the Government figures for the month of May have been circulated. We, therefore, reprint the table for the purpose of bringing it up to date. A falling off of 30,870 ounces will be noted in the imports during the first five months of this year, as compared with the amount imported during the corresponding period of 1901:—

1901.	Ounces.	Value.
January	271,480	$79,668
February	307,434	80,703
March	312,800	85,788
April	483,396	145,418
May	234,050	70,459
June	241,619	69,955
July	140,413	43,126
August	206,736	64,893
September	105,589	29,213
October	296,335	80,331
November	188,137	55,765
December	302,047	76,030
1902.		
January	316,385	82,022
February	417,647	111,913
March	353,472	95,901
April	318,726	89,630
May	182,060	55,553

HIGHER PRICES FOR COCOA BUTTER.

An advance has occurred in the spot prices for bulk cocoa butter on account of the higher average prices realized at the monthly auction at Amsterdam last Tuesday. In view of the small offerings at Amsterdam and London and the postponement of the latter sale until July 8, it was expected that the Amsterdam auction would go off at an advance, but the trade did not anticipate such high prices as were paid. The sale went off at an average price of seventy-four Dutch cents per half kilogram. This is the highest average of the year and represents an advance of seven Dutch cents over the average of the June sale, as the following table shows:—

1901.	Amsterdam. Dutch cts. Per ½ kilo.	London. Pence Per pound.
July	87	17
August	86	16 8-16
September	84	16 4-16
October	78	14
November	74	12 10-16
December	69	12 10-16
1902.		
January	71	12 10-16
February	69	12 6-16
March	64	12 4-16
April	67	12 5-16
May	68	12 2-16
June	67	12 1-16
July	74	——

The offerings for the Amsterdam sale aggregated only eighty-three tons, the participation being as follows:—Fifty-five tons of Van Houten, twelve tons of Mignon, eight tons of de Jong, four tons of Helm and four tons of Bedtke. For the postponed London sale there are offered fifty tons of Cadbury's brand. That these offerings are the lightest of the year, or indeed since last October, will be seen by the following table:—

1901.	Amsterdam. Tons.	London. Tons.
July	60	35
August	45	35
September	60	25
October	80	50
November	104	104
December	103	80
1902.		
January	119	70
February	110	90
March	107	90
April	96	100
May	106	100
June	96	70
July	83	50

THE PETROLEUM FIELDS IN JUNE.

The results of development operations in the older producing districts during the month of June were no more encouraging to the drillers than were those attending the operations during the two preceding months. The daily reports from the fields, while showing that there was no diminution in the active search for oil, nevertheless indicated that the results would prove not more satisfactory. Early in the month the indications were even less favorable, but during the second half quite a number of what may be classed as large wells were brought in and these caused an improvement in the average production of the new wells, though for the month the average shows a falling off as compared with the average production of the May wells. What is regarded as even more disappointing is the considerable increase in the percentage of dry holes. The character of much of the new work, which was largely in untried sections and in advance of defined limits in search of new pools and extensions, accounts for this, but also shows that efforts to add to or to enlarge the productive areas have not been so successful as could be wished or was expected. There was an increase of over two hundred in the number of wells completed during the past month, which resulted in an increase of but 2,200 barrels daily production. There was a large increase in the number of dry holes, the average having exceeded one failure in five wells drilled. Notwithstanding these unfavorable features, the operators have not relaxed their efforts, as even the low average production shows a fair return at the present price paid for the product, and the recent advance, though small, tends to still further stimulate development work. The features of the monthly field report are regarded as decidedly bullish, and hopes are entertained by the operators that a more substantial advance in price will ere long be announced. Although there is shown an increase in the amount of new work under way, it is small compared with the increase shown at the close of May.

The number of wells completed during the month of June in the states of West Virginia, Pennsylvania, New York, Ohio and Indiana was 1,463, which shows an increase of 216, as compared with the number completed during May. Of these wells 308 were unproductive, showing an increase of ninety-one in the number of dry holes reported. The daily production of the June wells at the close of the month was 18,155 barrels, which shows an increase of 2,264 barrels. The average production of the June wells was but a trifle over twelve and four-tenths barrels, while that of the May wells was twelve and three-quarters barrels. All the important districts showed an increase in the number of wells completed and in production, as also in the per centage of dry holes. The number of wells drilling at the close of the month was 1,234, showing an increase of thirty-six. The number of rigs in course of erection was 619, showing an increase of thirty-two, making the total increase of new work under way sixty-eight wells, as compared with an increase of 219 wells shown at the close of May.

(Special Correspondence to the Reporter.)

Stamp Tax Redemption Bill Passed.

Washington, July 3, 1902.

The first session of the Fifty-seventh Congress adjourned on Tuesday of this week, and among the last legislation to be enacted was the bill providing for the redemption of proprietary and documentary internal revenue stamps, which was originally introduced by Chairman Payne of the Ways and Means Committee, on December 17, and which hung fire in conference for three months before its final passage. The long contest in conference grew out of an effort made by the Senate Finance Committee to amend the bill so as to prohibit the redemption of cancelled stamps, whether improperly or unnecessarily used or not, but in this effort the Senate Committee was defeated, owing to the firm attitude of the House, and manufacturers of proprietary remedies and other goods taxable under schedule B of the war revenue act will be enabled, under the bill as passed, to redeem such stamps as may be presented to the internal revenue officials with proper evidence to show that they were unnecessarily used.

The original purpose of the Payne bill was to extend the terms of the stamp redemption act of May 12, 1900, for two years, but so much time was lost in securing this legislation that it was finally advanced to July 1, 1904. The bill, as passed, therefore, reads as follows:—

"Be it enacted, etc., That the act entitled 'An act authorizing the Commissioner of Internal Revenue to redeem or make allowance for internal revenue stamps,' approved May 12, 1900, be amended by adding to the second provise the following: 'Provided further, that no claim for the redemption of, or allow-

ance for, stamps shall be allowed unless presented within two years after the purchase of said stamps from the government, excepting documentary and proprietary stamps issued under the act of June 13, 1898, which stamps may be redeemed as hereinbefore authorized, upon presentation prior to the first of July, 1904."

Under this act a considerable number of claims heretofore rejected by the Treasury Department will be allowed. Their rejection has been based upon the inability of the owners of the stamps to prove that they were purchased within two years of the presentation of the claim, but this limitation is expressly waived by the bill which has just become a law. These claims may now be reviewed and, if correct in other particulars, will be promptly allowed.

Manufacturers of proprietary goods should bear in mind that the bill as passed does not provide for the redemption of stamps attached to cartons, containers, etc., and not removed from store. Stamps which are of sufficient value to justify their removal from the goods may be presented under regulations provided by the Commissioner of Internal Revenue, but in all cases such goods must still be in the original factory warehouse as the tax accrued on the removal of such goods from such warehouse, even though they may still be in possession of the manufacturer, and where the tax has accrued the stamps cannot be said to have been "unnecessarily used" and therefore cannot be redeemed.

TRADE ITEMS.

(For other Trade Items see table of contents on page 22.)

Parties desiring to be brought in contact with concerns who offer bargains in machinery are respectfully referred to page 27 of this issue.

Robert S. Perry has been elected president and general manager of Harrison Bros. & Co., inc., Philadelphia, succeeding Thomas S. Harrison.

Bristol, Va., is to have a barytes mill and paint factory, the buildings and machinery for which will cost about $30,000. The plant, says the Richmond News, will be established at an early date by John T. Williams, of New York.

John A. Stevens, vice-president of the National Lead Company, of this city, returned on Tuesday last from a ten days' outing in Maine. R. P. Rowe, of the same company, left on Wednesday with his family, for their regular Summer outing down East.

Paint grinders will do well to accept the offer of the Ferrous Pigment Company, of Cleveland, O., to send samples of the oxides they are manufacturing, as they are not only turning out the usual shades, but also greens and yellows. The attention of the paint trade is called to their advertisement on the front page for full particulars.

The executive committee of the Turpentine Operators' Association held its regular monthly meeting in Jacksonville on June 24. The treasurer's report showed the finances of the association to be in a satisfactory condition. W. J. Hillman, H. A. McEachern and John C. Powell were appointed a committee to confer with the factors for the purpose of securing their aid and influence in getting a large number of operators to attend the annual meeting at Jacksonville on September 14.

The machine printers and color mixers in Janeway & Company's and Janeway & Carpender's wall paper factories in New Brunswick, N. J., went on strike last Tuesday. The cause of the strike was the refusal of the companies to sign the wage-scale for the coming year. The strike ties up the factories at a busy time, when samples are being got ready for next year's trade. The refusal to sign the scale is based on the objection that signing means the making of a contract to keep all the men busy for the entire year.

The Union Distilling Company, of San Francisco, Cal., has established near Agnews, that State, a plant for the manufacture of alcohol. The material from which the alcohol is produced is called "black strap," or refuse molasses, which seems to be useless for any other purpose; but when it has passed through the refining process to which it is subjected in the stills, becomes a valuable chemical product. The business has been planned on an extensive scale. The buildings comprise the main factory, office, government office, storage room for product, Government bonded warehouse of 3,000 barrels' capacity, barrel room, cooper shop and tenement houses for the employes.

The Whitewright Cotton Oil and Manufacturing Company, of Whitewright, Tenn., has filed an amendment to its charter, increasing its capital stock from $4,000 to $50,000.

If you desire to be brought in contact with the makers of machinery which enters into the manufacture of chemicals, drugs, paints, dyestuffs, fertilizers, naval stores, varnish, white lead, cotton oil, linseed oil, lubricating oil, etc., we would respectfully refer you to the Machinery Department of this publication, which you will find on page 23. Any special information that may be desired will be gladly furnished upon application, for we are in a position to place prospective purchasers in direct communication with the manufacturers of machinery of all kinds.

E. de la Balze, general agent in Europe for the Humphreys' Homeo. Medicine Co., gave a dinner and reception at his residence, 24 Avenue de l'Opera, Paris, in honor of Mr. H. B. Harding, secretary and treasurer of the company. Among the guests were Mr. J. Belieres, agent for France; Mr. Dannerville, of Brussels, agent for Belgium; Mr. Kris, of Vienna, agent for Austria; Mr. Felipe de la Balze, of Buenos Ayres, agent for the Argentine Republic. Mr. and Mrs. Harding, after an extended tour through Germany, Austria, Belgium and France, sailed for New York last Saturday by the St. Louis.

The Board of Directors of the American Window Glass Company held a meeting at Pittsburgh last Tuesday and declared a dividend of 1½ per cent. on the common stock, making this a 6 per cent. stock for the last twelve months, being the fourth quarterly dividend of 1½ per cent. The owners of the glass-blowing machine made a proposition to the company to sell them the exclusive rights of the machine, and the directors, after the meeting, said the offer was very reasonable. The machine is owned by President James W. Chambers of the company and T. Hart Given. The machine has had no public trial, but it is said to be a distinct commercial success.

Proceedings on behalf of the State of Colorado to dissolve the American Smelting & Refining Company have been begun in the State Supreme Court. It is set forth that the American Smelting & Refining Company and several other smelting concerns are in a combination to restrict competition; that the results of the monopoly are injurious to the industries of the State, and that it is paying unreasonable dividends upon excessive capitalization. The suit instituted by the Attorney-General to annul the company's charter in Colorado is regarded by the officials of the Smelting Company as a political move on the part of the Attorney-General, who, they claim, wants to make himself popular with his party in the coming election.

William Rose, for the past ten years superintendent of the New York Fruit Exchange, and formerly connected with the Mediterranean trade, died at his home in Brooklyn on June 28, in his seventy-fifth year. Mr. Rose was born in England in 1827, going to Italy when a very young man. He came to New York in 1854 and was associated with the firm of Draper & Devlin. On the dissolution of this firm Mr. Rose entered into partnership with Mr. Devlin under the title of Rose & Devlin. This firm ceased to exist in 1872, Mr. Rose continuing the business alone. Later he became associated with the New York Auction Co. and J. D. Nordlinger & Co. His connection with the houses mentioned lasted over several years, after which he entered the Fruit Exchange. Mr. Rose leaves a wife and three children.

The South Carolina Inter-State and West Indian Exposition, which closed May 31, gave the American Steel and Wire Company, of Chicago, the following awards: Merchants' iron and steel, cold drawn steel shafting, gold medal; horse and mule shoes, gold medal; wire nails, gold medal; rail bonds, gold medal; wire rope, gold medal; machinery and appliances for drawing wire, gold medal; springs and spring wire, gold medal; copper, gold medal; iron and steel, gold medal; aluminum wire, gold medal; bicycle and automobile spokes, silver medal; rolled wagon skeins, silver medal; underground and overhead wires and cables, silver medal; metallurgy of zinc, silver medal; music wire, bronze medal; coal and coke, bronze medal; bale ties, bronze medal; chemicals and colors, bronze medal; installation in Commerce Building, diploma of merit. These medals of gold, silver and bronze, represent the highest awards in each class.

With the last turn on June 28 the plate glass and window glass industries of the country came to a standstill, the former plants for one and the latter for two months, throwing idle an aggregate of 10,000 men. The complete shut down of the plate glass factories is a condition never before existing in this country. The glass men went out through an agreement of producers, which the Pittsburgh Plate Glass Company insisted upon, thereby forcing the smaller concerns to fall in line. The window glass workers who quit are employed in the independent factories, the American companies and the Federation Company's employes having quit on May 15.

(For other Trade Items see table of contents on page 22.)

PETROLEUM NOTES.

In the Lewisville district, Monroe county, O., the Fisher Oil Co. has completed a test on the Amos Kestner farm and has a 15-barrel pumper.

In the Legionville district, Beaver county, Pa., Snyder & Co. have drilled in their No. 4 on the John Hamerlee, Jr., farm, and have a 20-barrel pumper.

In the Bealls Mills district, Lewis county, W. Va., the South Penn has completed No. 5 on the C. W. McCutcheon farm and has a 25-barrel producer.

In the Bricker district, Harrison county, O., the J. F. Wilson Oil Co. has completed its No. 5 on the A. J. Clifford farm and has a 5-barrel pumper.

In the Salem district, Harrison county, W. Va., the Patterson Fork Oil Co. has completed its No. 6 on the R. T. Lowder farm and has a 10-barrel pumped.

On Richwood run, Wetzel county, W. Va., the Carter Oil Co. has completed and shot its No. 8 on the John Wiley farm and has an 80-barrel producer from the Gordon.

Across the Beaver county line, in the Carson pool in Hancock county, O., E. A. Freshwater & Sons have completed a test well on the A. Cunningham farm and have a 5-barrel pumper.

On Sugar Creek, Pleasants county, W. Va., Ellsworth & Davis have drilled their No. 9 on the John Wagner farm through the Cow Run sand and have a show for a 75-barrel producer.

On the west side of the "Little Germany" district in Marshall county, the South Penn Oil Co. has drilled its No. 2 on the A. and C. Hartley farm into the Gordon and has a producer.

Three-fourths of a mile northwest of the development on Big Knot run, Ritchie county, W. Va., Trees & Co. have drilled a well on the Wagner farm and have a show for a 100-barrel producer.

In the Bealls Mills, fifth sand district, Lewis county, W. Va., the South Penn Oil Co. has drilled its No. 5 on the C. W. McCutcheon farm into the Gordon sand and has a show for a good producer.

In the shallow sand territory, on Wolf Creek, Morgan county, O., A. J. Lockard & Co. have drilled in their No. 12 on the John Sheets farm and have a show for a 50 or 75-barrel producer.

In the Speechley sand district in Butler county, Pa., the Southern Oil Co. has drilled in No. 2 on the Mary Walker farm and No. 3 on the Wm. Starr farm and has a show for a 3 and 7-barrel pumper.

In the Yellow Creek development, Center district, Calhoun county, W. Va., Gillespie & English have drilled their test on the Lora L. Bower farm into the Berea and have a show for a 50-barrel producer.

In the Montgomery field, near the Alleghany and Butler county line, Pa., Eisler, O'Brien & Co. drilled in their test on the Samuel Schwab farm deeper and got a second pay and now have a 60-barrel producer.

Southwest of the Wolf Summit field in Harrison county, W. Va., the South Penn Co. has drilled its No. 5 on the G. W. Brohard farm through all sands, including the fifth, and has a small pumper in the lower formation.

In the Marietta district, Washington county, O., Henry C. Lord & Co. have completed their No. 7 on the Joseph Fisher farm and have a 50-barrel producer. In the same district R. G. Gillespie has drilled his No. 6 on the Cone heirs' farm through the Cow Run sand and developed a good gas pressure and some oil.

In the northeast end of the Pine Grove district, Wetzel county, W. Va., and northeast of the producers on the Delaney farm, the South Penn has drilled its No. 1 on the Mary E. White farm into the stray and has a show for a producer.

In the Folsom Gordon district, Wetzel county, W. Va., the South Penn Oil Co. has drilled its test well on the Keener heirs' farm, located west of the Fairfield Peterson No. 1, into the Gordon stray and has a show for a 20-barrel producer.

In the Murdocksville extension, in Washington county, Pa., the Hanover Oil Co. has completed No. 6 on the Dorman heirs' farm and Patterson & Riddle have completed No. 15 Thomas Patterson. The first is good for 25 barrels and the last named 15 barrels a day.

In the Sand Hill district, Washington county, O., E. Clark & Co. have completed their test on the Ralph Bean farm and have a show for a 10-barrel pumper in the Cow Run sand. The Palmer Oil Co.'s No. 5 on the William Dye farm is about the same size in the same sand.

In the new Big Injun sand development, north of Center Point, Doddridge county, W. Va., the Carter Oil Co. has drilled in a test on the Daniel Carter farm, located 500 feet east of the initial producer on the Carter Harris farm, and has a producer good for 100 barels a day from the Big Injun sand.

In the Springtown district, Tyler county, W. Va., the South Penn Oil Co. has shot its No. 1 on the C. T. Hill farm and has increased its production to 150 barrels a day. In the same county, the Colonial Oil Co. has completed its No. 6 on the White heirs farm and has a show for a 15-barrel pumper in the Big Injun sand.

On the east side of the new Gordon sand development, near Folsom, Wetzel county, Miller Bros. have drilled in a test well on the E. A. Talkington farm and have a good producer. When a few feet in the sand the well began to flow at the rate of 15 barrels an hour, and the first 24 hours placed more than 300 barrels to its credit.

In the Folsom, Gordon sand development in Wetzel county, W. Va., the South Penn Oil Co. has completed its test on the Keener heirs' farm and has an 80-barrel producer in the Gordon. In the same district, on the west side, the same company has completed its No. 11 on the Genine Robinson farm and has a small pumper.

All the oil which the Julia Luckenbach will bring North from the Beaumont field in the next 12 months has been sold by the Texas Oil and Pipe Line Co., which has the steamship under charter for five years. The capacity of the boat is 25,000 barrels, and it is expected she will carry 400,000 barrels to this port and Philadelphia in the course of a year.

Three-fourths of a mile northeast of the new Keener sand pool in Monroe county, O., the Ohio Oil Co. has developed a new feature at its test well on the G. W. Eaton farm. When it drilled into the Big lime, which lies about 30 feet above the Keener sand, a good show of oil was developed and the well is estimated to be good for 10 or 15 barrels a day from that level.

The new Keener sand strike, west of the Big Knot run pool in Clay district, Ritchie county, W. Va., from the top of the sand showed for 150 barrels a day, but when drilled a little deeper into the sand increased its production to 25 barrels an hour, and the gauge for the first 24 hours was 575 barrels. It is owned by the Three Joes Oil Co., located in the Elroy Wagner farm.

Near Germantown, Washington county, O., some good wells are being completed in the Macksburg 500-foot sand. Stephens, Boss & Co. have just drilled in their No. 3 on the James Jackson farm and have a show for a 125-barrel producer in that formation. In the Highland district, J. M. Guffey & Co. have completed No. 2 on the J. A. Holstein farm and have a show for a 10-barrel pumper in the Big Injun sand.

The oil companies of Kentucky will form an organization within the next month or two, to be known, probably, as the Kentucky Oil Producers' Association. It will be for the purpose of standing together on all propositions that affect the industry as a class, and will include in its make-up representatives from all legitimate companies, to the number of several hundred, now doing business in the different fields of Kentucky.

In the Bowerston development, Harrison county, O., the Southern Oil Co. has completed No. 3 James Crumrine and has a 5-barrel pumper. The Ohio Consolidated Oil Co. has completed its test on the Isaac Miller farm and has the same kind of a pumper.

At a meeting of the officials of the Forest Oil Co. and the South Penn Oil Co., held in Oil City last Tuesday, the holdings of the first named company were transferred to the South Penn Oil Co. for a consideration not made public. The Forest comany property consists of 25,000 acres of producing territory in Alleghany, Butler, Beaver and Washington counties, on which are about 3,700 producing wells, with an aggregate production of 5,000 barrels a day.

A conference of Russian oil producers and exporters has resolved to petition for a reduction of the present tariff in Russia for the carriage of Russian oil to enable the Russians to compete with the American oil producers. The present prices of Russian kerosene and naphtha, it is stated by the conference, are so low that the current tariff scale is unwarranted. The Russian producers think that their product should be able to compete with the American, not only in Europe, but also in India.

OBITUARY.

Charles H. Howell.

Colonel Charles H. Howell died June 18 after a long illness at his residence, 1523 Walnut street, Philadelphia. He was the second son of the late Henry C. Howell, and was born in that city on February 10, 1848. On January 29, 1880, he married Annie M. Fitler, daughter of the late Edwin H. Fitler, who survives him, with three daughters and one son.

Colonel Howell was virtually the founder of the Fairmount Park Art Association, and always took the most active part in its affairs. After occupying various positions in this important organization he was made its president two years ago.

Since he attained manhood he evinced great interest in the military affairs of the State, beginning with the First Troop, Philadelphia City Cavalry, of which he was an honorary member, and later as lieutenant-colonel upon the staff of Governor Hastings and as division quartermaster upon General Snowden's staff. During the Spanish War he was president of the Red Cross Society of Philadelphia. He was also vice-president of the Charity Hospital at Eleventh and Cherry streets, and treasurer of the Mercantile Beneficial Association.

He started in the manufacture of paint, colors and varnish in 1876, and was at the head of the firm of Charles H. Howell & Co., of Philadelphia, until his death.

MISCELLANEOUS.

Bids for Naval Supplies.

Bids were opened at the bureau of supplies and accounts, Navy Department, on June 24, for furnishing supplies for the New York Navy Yard as follows:—

Bidder 2. Edward Morris.
5. A. Gunnison & Co.
8. Phoenix Paint and Varnish Co.
9. Paul A. Davis.
16. Abram L. Hirsch.
17. John Wanamaker.
19. Manhattan Oil Co.
25. R. W. Geldart.
26. U. S. Trading Co.
28. Miller, Thornburgh & Co.
29. James Reilly Repair and Supply Co.
30. Manhattan Supply Co.
33. Francis Harral.
36. J. B. Kendall.
37. Fiske Bros. Refining Co.
38. U. Cowen Sons.
45. Charles M. Childs & Co.
47. Gledden Varnish Co.
52. Climax Refining Co.
53. F. O. Boyd & Co.
56. Michigan Chemical Co.
59. John B. Roache.
61. F. W. Devoe & C. T. Raynolds Co.
62. B. Wallis & Co.
66. James Langmuir.
67. R. P. Rowe.
70. Manning, Maxwell & Moore.
71. H. M. Storms.
78. Montgomery & Co.
79. John Greig.
80. J. Edward Ogden & Co.
85. E. F. Houghton & Co.
91. Standard Oil Co.
93. Old Dominion Paper Co.
94. Globe Oil Co.
96. Swift & Co.
98. Shoemaker & Busch.
100. John W. Masury.
104. Holbrook Bros.
116. John Lucas & Co.
120. American Distributing Co.
123. Berry Bros.
126. Cheeseborough Mfg. Co.

Class 10. 66 boxes window glass—Bidder 16, $387.90; 17, $404.83; 104, $404.88; 80, $438.60; 70, $405.30; 71, $440.10; 30, $440.30; 62, $447; 38, $469.93; 59, $506.60.

Class 33, 10,000 gals alcohol—Bidder 120, $3,100; 56, $3,350; 98, $3,812.50; 9, $7,000.

Class 34, 3,000 gals varnish, asphaltum—Bidder 123, $1,710; 8, $1,860; 28, $1,890; 98, $1,887; 100, $2,040; 66, $2,130; 116, $2,400; 5, $2,490; 53, $3,450; 29, $2,610; 47, $2,700.

Class 35, 3,000 gals japan drier—Bidder 116, $1,725; 123, $1,860; 100, $1,890; 8, $2,250; 98, $2,205; 66, $2,520; 61, $2,970; 28, $2,940; 29, $2,790; 5, $2,640; 47, $3,750.

Class 36, 10,000 gals turpentine—Bidder 37, $5,384; 91, $5,579; 16, $5,897; 9, $7,200.

Class 37, 10,000 gals. raw linseed oil and 3,000 gals. boiled linseed oil—Bidder 67, $9,680; 52, $9,738; 37, $9,773.40; 26, $9,797; 94, $10,460; 9, $10,690.

Class 38. 5,000 gals. sperm oil—Bidder 52, $4,250; 5, $4,275; 94, $4,900; 37, $4,672.50; 19, $4,725; 9, $4,750.

Class 39. 40,000 gals. lard oil—Bidder 37, 34,676; 19, $35,800; 2, $37,668.

Class 40. 10,000 gals. mineral oil—Bidder 91, $1,419; 37, $1,490; 5, $1,975.

Class 41. 3,000 gals. of cylinder oil—Bidder 37, $580.50; 5, $645; 85, $682.50; 62, $780; 19, $870; 79, $930; 94, $1,500.

Class 42. 5,000 lbs. polishing paste—Bidder 29, $420; 33, $424.50; 37, $462.50; 30, $547.50; 28, $575; 5, $737.50.

Class 43. 10,000 lbs. petrolatum—Bidder 126, $374; 5, $394; 37, $450; 98, $574; 85, $558.

Class 44. 2,000 lbs. carbonate of potash and 500 lbs. caustic soda—Bidder 98, $172.50; 16, $200; 78, $205.75.

Class 45. 14,000 lbs. venetian red—Bidder 116, $649.60; 45, $665; 61, $679; 8, $721; 66, $747.60; 100, $787.50; 29, $910.

Class 46. 130 gals. muriatic, nitric and sulphuric acid—Bidder 98, $50.99; 36, $65; 79, $67.30.

Class 47. 50 gro. chalk crayons, 28 qts. rubber cement and 10 gals. gold size. Bidder 98, 29.25; 79, $49.20; 16, $61.80; 59, $106.40.

Class 65. 2,000 cakes castile soap—Bidder 29, $180; 16, $184; 93, $184; 25, $185.

Class 66. 1,800 cakes brown laundry soap—Bidder 96, $58.50; 30, $70.02; 16, $70.20; 25, $76.50; 93, $81.

Fine Exhibit of Kauri Gum.

Paterson, Boardman & Co. have on view in their show rooms at No. 10 Bridge street, a remarkable collection of specimens of kauri gum. The exhibition numbers about 200 pieces and was brought to New York by S. Wrawnsley of Whangarei, New Zealand. Originally there were about 300 pieces in the collection, but many were broken in transit. The gum has been carved into a number of odd and beautiful shapes, among them being a lighthouse, a grotesque head, pyramids, spheres, several crosses and a facsimile of a closed book, ornamented on one cover with a large cross and on the other with a beautiful and intricate carving of a New Zealand fern. Possibly one of the best pieces is a miniature lighthouse and lightkeeper's cottage, complete with signal gun, lifeboats swinging from davits and all the usual paraphernalia, the whole mounted on a block of gum carved to represent a rock. Unfortunately this piece has been broken, but George S. Knapp of Paterson, Boardman & Co. intends to have it restored as soon as possible. A very interesting specimen consists of a box full of fibers, which, at first glance, would be mistaken for silk floss. This impression is further borne out when one comes to touch the article. Mr. Wrawnsley explained, however, that it was merely gum worked under heat.

Mr. Wrawnsley himself is a very interesting character. He went to New Zealand when the country was overrun with savages. He gradually gained their confidence, educated some of them, and is now a member of two Maori tribes. By very hard work, and in the face of great privations, he built up what is to-day probably the largest gum exporting house in New Zealand. His shipments to Paterson, Boardman & Co. alone will aggregate nearly 5,000 cases this year. He has been in the States for some little time now, but will start for home via San Francisco before this issue of the Reporter comes from the press. Mr. Wrawnsley is much impressed with the country, particularly the West.

New Corporations.

The Eygabroat-Ryan Co., at Lawrenceville, Pa., to manufacture glass. Capital, $125,000.

The Handley Glass Manufacturing Company, at Newark, N. J., to manufacture glass jars, etc. Capital, $100,000. Incorporators:—Henry B. Handley, Edw. H. Marcus and Eugene Cassler.

The Logan County Cotton Oil Company, at Paris, Texas. Capital, $50,000. Officers and directors:—W. H. Jones, president, Paris; George M. Zeller, vice-president, Paris; A. Hall, secretary, Paris; W. R. Cherry, treasurer, Paris; H. M. Nichols, Paris; George Helm, C. N. Green, Morrison's Bluff.

The Brownsville Cotton Oil Mill, at Brownsville, Tenn. Capital, $50,000. Directors, W. D. Roberts, of Memphis; George W. Lyle, Hill Bond, J. O. Bomer, R. N. Bond, W. S. Roberts and John Campbell, of Memphis. Officers:—W. D. Roberts, president; G. W. Lyle, vice-president; Hill Bond, secretary.

The Independent Refining Company, at Memphis, Tenn. Capital, $50,000. Officers:—Morris Israel, president; Robert Keith Dargan, vice-president and general manager; I. S. Cohen, secretary and treasurer. Directors, Morris Israel, I. S. Cohen, R. B. Lebby, of Charleston; Bright Williamson, E. Keith Dargan, Robert Keith Dargan, of Darlington; C. A. Woods, of Marion; C. W. Garris, of Bamberg, and C. K. Henderson, of Aiken.

Price Ranges of Citric Acid, Bleaching Powder, White Arsenic, Bichromate of Potash and Brimstone.

The subjoined tables show the highest and lowest prices quoted for the various articles mentioned above in the New York market each month during the past three to five years, and also the highest and lowest points touched each year. The figures are based on the closing quotations of each successive week:—

Citric Acid, Domestic.

	1901. H.	1901. L.	1900. H.	1900. L.	1899. H.	1899. L.	1898. H.	1898. L.	1897. H.	1897. L.
Jan.	40	40	35	35	37	33	33	32	34½	34½
Feb.	40	40	41	35	37	37	32	32	34½	34½
Mar.	42	42	41	41	37	37	32	32	34½	34
Apr.	43	41	38	38	36	36	32	32	34½	34
May	41	39	38	38	41½	36	34	32	34	34
June	39	39	40	40	41½	41½	35	34	33	33
July	39	37	40	40	41½	41½	36	35	33	33
Aug.	37	37	40	40	40	40	38	36	33	33
Sept.	37	36	38	38	39	38	37½	35½	33	33
Oct.	36	36	39	38	38	36	35½	34½	33	33
Nov.	35	34	29	39	36	35	35	33½	33	33
Dec.	34	33	40	39	35	35	34	34	33	33
Year	43	33	41	35	41½	33	38	32	34½	33

White Arsenic.

	1901. H.	1901. L.	1900. H.	1900. L.	1899. H.	1899. L.	1898. H.	1898. L.	1897. H.	1897. L.
Jan.	4½	4½	4¾	4¾	4¼	4	4⅞	4⅞	5¼	5½
Feb.	4½	4½	4¾	4¾	4¼	4¼	5	4⅞	5½	5¼
March	4½	4½	4¾	4¾	4¼	4	4¾	4½	5½	5
April	4¼	4¼	4⅞	4¾	4¼	4	4½	4½	5¼	5¼
May	4½	3½	4¾	4¾	4¼	4¼	4½	4½	5½	5¼
June	3½	3½	4⅝	4⅝	4½	4¼	4½	4¼	5½	5¼
July	3¾	3½	4⅝	4⅝	4¾	4½	4¾	4¼	5¼	5
Aug.	3¾	3¼	4⅝	4⅝	4¾	4½	4¼	4	5½	5½
Sept.	3½	3½	4⅝	4⅝	4¾	4⅜	4¼	3⅞	5½	5¼
Oct.	3⅜	3½	4⅝	4⅝	4¾	4¼	4½	3⅞	5¼	5¼
Nov.	3⅜	3¼	4⅝	4½	4¾	4⅜	4	4	5¼	4⅝
Dec.	3½	3¼	4½	4½	4¾	4¾	4	3⅞	5	4⅝
Year	4½	3¼	4⅞	4½	4¾	4	5	3⅞	5¼	4⅜

Bleaching Powder.

	1901. H.	1901. L.	1900. H.	1900. L.	1899. H.	1899. L.	1898. H.	1898. L.
Jan.	1.90	1.75	2.75	2.25	1.40	1.40	1.80	1.80
Feb.	1.80	1.75	2.75	2.50	1.60	1.40	1.80	1.80
Mar.	1.80	1.75	2.25	1.75	1.65	1.50	1.80	1.65
April	1.75	1.60	1.75	1.60	1.40	1.40	1.65	1.65
May	1.80	1.75	1.65	1.50	1.40	1.30	1.50	1.50
June	1.85	1.85	1.60	1.50	1.25	1.25	1.50	1.50
July	1.80	1.60	1.60	1.60	1.25	1.25	1.50	1.40
Aug.	1.95	1.70	1.50	1.50	1.45	1.25	1.50	1.50
Sept.	1.95	1.95	1.60	1.50	1.70	1.60	1.50	1.50
Oct.	2.00	1.85	1.65	1.60	1.75	1.60	1.50	1.40
Nov.	1.85	1.75	1.80	1.65	2.25	1.75	1.50	1.40
Dec.	1.75	1.75	1.90	1.90	2.25	2.25	1.50	1.50
Year	2.00	1.60	2.75	1.50	2.25	1.25	1.80	1.40

Bichromate of Potash, American.

	1901. H.	1901. L.	1900. H.	1900. L.	1899. H.	1899. L.	1898. H.	1898. L.
Jan.	8½	8¼	9¼	9	9½	9½	10	10
Feb.	8¼	8¼	9	9	9½	9½	10	10
Mar.	8¼	8¼	9	9	9½	9½	10	10
April	8¼	8¼	9	9	9½	9½	10	10
May	8¼	8¼	9	8¾	9½	9½	10	9¾
June	8¼	8¼	8½	8½	9½	9½	9¾	9¾
July	8¼	8¼	8½	8½	9½	9½	9¾	9¾
Aug.	8¼	8¼	8½	8½	9½	9½	9¾	9¾
Sept.	8¼	8¼	8½	8½	9½	9½	9¾	9¾
Oct.	8¼	8¼	8½	8¾	9½	9½	9¾	9¾
Nov.	8¼	8¼	8½	8¾	9½	9¼	9¾	9¾
Dec.	8¼	8¼	8½	8½	9¼	9¼	9¾	9½
Year	8½	8¼	9¼	8¾	9½	9¼	10	9½

Crude Brimstone.

	1901. High.	1901. Low.	1900. High.	1900. Low.	1899. High.	1899. Low.
Jan.	21.50	20.75	21.00	21.00	21.50	21.50
Feb.	22.00	21.00	22.00	21.00	22.00	21.50
Mar.	21.25	21.25	21.25	21.00	22.00	21.75
April	21.25	21.00	21.25	21.00	21.75	20.50
May	21.25	21.00	21.25	20.75	20.75	20.25
June	22.25	21.75	21.25	20.50	20.75	20.75
July	22.25	21.75	21.75	21.00	20.75	20.50
Aug.	22.00	21.75	21.75	21.75	20.75	20.50
Sept.	22.25	22.00	21.75	21.00	20.75	20.75
Oct.	24.00	22.25	21.20	20.00	22.00	20.75
Nov.	24.00	22.75	21.00	21.00	21.00	20.75
Dec.	23.25	22.75	21.00	20.75	21.00	21.00
Year	24.00	20.75	22.00	20.00	22.00	20.25

Naval Stores Export Statistics.

The following table gives the amounts of the several products shipped to each country during the month of May and for the period of eleven months ended May 31, 1902, with comparisons, rosins being given in barrels, and spirits of turpentine in gallons. The report of exports of rosins also includes tar and pitch.

EXPORTS OF ROSINS DURING MAY.

Exported to—	1901.	1902.
United Kingdom	58,994	63,222
Germany	67,740	68,436
Other Europe	99,116	82,560
British North America	4,994	7,737
Cen. Am. States & B. Honduras	380	395
Mexico	635	410
Santo Domingo	207	124
Cuba	785	592
Other West Indies & Bermuda	329	278
Argentina	12,541	14,099
Brazil	11,126	11,661
Colombia	727	122
Other South American	1,809	5,167
Chinese Empire	303	465
Japan	831	640
British Australasia	3,906	3,969
Other Asia and Oceania	249	224
Africa	279	45
Other countries	....	....
Total, rosin, tar, etc.	234,950	260,144
Included in above are:		
Tar	1,818	1,529
Pitch	940	2,162

EXPORTS FOR ELEVEN MONTHS.

	1900.	1901.	1902.
United Kingdom	716,774	776,093	773,375
Germany	529,786	736,449	530,948
Other Europe	615,853	763,379	644,367
Brit. N. America	62,126	60,176	48,694
Cent. Am. States & Brit. Honduras	5,654	4,255	3,723
Mexico	2,197	4,013	5,368
Santo Domingo	973	2,007	1,629
Cuba	7,094	7,739	10,192
Porto Rico	772	.....	.....
Other West Indies and Bermuda	3,641	4,116	4,394
Argentina	67,547	85,772	22,192
Brazil	78,247	98,769	113,870
Colombia	4,764	5,910	3,697
Other South Am.	44,821	40,543	47,518
Chinese Empire	1,689	1,624	3,213
Japan	6,313	7,250	17,442
British Australasia	32,815	32,496	51,870
Other Asia and Oceania	60,018	27,101	83,761
Africa	1,440	2,089	1,167
Other countries	23	10	.....
Total rosin, tar, etc.	2,242,517	2,659,782	2,367,430
Included in above are:—			
Tar	34,465	30,881	22,121
Pitch	17,152	17,748	16,789

EXPORTS OF SPIRITS OF TURPENTINE IN MAY.

Exported to—	1901.	1902.
United Kingdom	1,183,364	509,330
Germany	230,056	365,540
Other Europe	574,311	1,523,544
British North America	168,714	131,966
Cent. America & B. Honduras	1,117	1,656
Mexico	505	685
Santo Domingo	25	94
Cuba	5,392	4,413
Other W. Indies & Bermuda	2,450	1,831
Argentina	13,840	11,560
Brazil	12,923	9,148
Colombia	1,304	615
Other South America	29,929	10,643
Chinese Empire	400	350
Japan	4,010	.....
British Australasia	88,357	46,128
Philippine Islands	1,000	.....
Other Asia and Oceania	850	1,170
Africa	9,518	10,699
Other countries	.....	.....
Totals	2,268,065	2,629,371

EXPORTS FOR ELEVEN MONTHS.

Exported to—	1900.	1901.	1902.
United Kingdom	6,703,282	7,220,509	7,655,711
Germany	2,313,317	2,806,283	2,521,237
Other Europe	3,957,094	5,149,104	4,981,830
B. North America.	603,177	630,142	692,729
Central America & Br. Honduras	11,868	13,688	15,077
Mexico	6,642	6,646	6,288
Santo Domingo	822	1,669	1,722
Cuba	86,390	97,644	101,953
Porto Rico	6,617	.....	.....
Other West Indies and Bermuda	18,459	22,607	22,544
Argentina	257,814	273,305	136,390
Brazil	111,994	144,746	120,261
Colombia	6,358	10,327	7,931
Other S. America	112,928	193,957	86,975
Chinese Empire	13,710	20,050	17,012
Japan	31,160	25,060	17,991
Brit. Australasia	424,096	558,319	416,062
Philippine Islands.	590	9,250	11,810
Other Asia and Oceania	49,210	27,230	45,190
Africa	45,036	82,188	95,822
Other countries	103	306	.....
Totals	14,760,667	17,293,030	16,954,535

Manufacture of Oxide and Peroxide of Barium.

The increasing importance of the oxides of barium has led to many methods being devised for the improvement of their manufacture. It is more especially the production of the monoxide that has occupied attention; it enables us, in fact, to prepare hydrate of baryta or the binoxide at a low price. Any new process which solves the question in a satisfactory manner must result in great activity in this branch of industry.

The methods for the manufacture of oxide of barium start from two principles, according to the use to which the product is to be put. If we wish to produce hydrate of baryta, the decomposition of the soluble salts of barium

CARBONATE OF AMMONIA
KEYSTONE BRAND—Casks, Kegs, 5, 10, 12½ and 25 lb. Cans.
BONE ASH Asphaltum Substitute for Varnish Makers
Bone Black, Coarse and Powdered.
GLUES AND GELATINE
WRITE FOR SAMPLES AND PRICES.
Michigan Carbon Works, Detroit

by an alkali cannot be considered as anything beyond a laboratory experiment. If we heat carbonate of baryta in the presence of superheated steam, it frequently happens that on the addition of carbon, we do not get satisfactory results, the decomposition being incomplete. It is only by treating sulphide of barium by oxide of zinc or by other metallic oxides that, for a long time past, large quantities of caustic baryta have been prepared; this method is, however, very inconvenient, and very ill-suited to working on the large scale. On the other hand, we can obtain a very pure oxide, and, thanks to its porosity, one very well adapted to the preparation of the binoxide, by decomposing nitrate of barium at a high temperature in Hessian crucibles. The loss of nitric acid, however, makes the cost of the oxide thus prepared rather high. M. Wachtel has given some very interesting general instructions for the manufacture of oxide and peroxide of barium.

The demand for peroxide has risen so rapidly that the resulting increase of production even cannot long remain as it is. However, as a general rule, no few factories have been started. In Italy, during the last few years, factories using the old nitrate method have been established, but with regeneration of the nitric acid; but it does not appear, up to the present, that any very advantageous results have been obtained. This method has also been tried in North America, but we have no authentic information as to the conditions of manufacture employed.

As for the peroxidation of the oxide, several new processes have been mentioned, differing slightly from those in use up to the present. These include the use of retorts, arranged in various manners, of oblong or rectangular section, which can be filled and emptied easily, or muffle furnaces in several stages, so constructed that the whole furnace or each stage can be heated separately.

Thus we obtain regular heating, and the oxidation is effected regularly and easily. In practice compressed air is almost universally used for the oxidation.

With regard to the recovery of the nitric acid in the method by decomposing nitrate of barium, M. Wachtel's work already referred to may be consulted with advantage. It is claimed that 30 per cent. of the total acid can be recovered, but this figure has not been verified.

As we remarked at the commencement of this article, the future has in store for us a new process of manufacture, which is a very great advance; it has been discovered at the cost of numerous and difficult experiments. The origin of this process lies in the sugar industry, more especially in the removal of sugar from molasses.

The deposits of strontianite and celestine are nearly exhausted, and new ones have not been discovered; on the other hand, it has been observed that the use of baryta completely removes the sugar from molasses, and that the product obtained is as good as that prepared by means of strontianite.

We must then, sooner or later, have recourse to baryta, and the present consumption of baryta in the sugar industry is fairly considerable. Efforts must, therefore, be made to establish a method for the manufacture of the oxide and hydrate of baryta which will satisfy the increasing demands which will arise. To begin with, we can only deal with carbonate of baryta, a product which can be obtained commercially in a state of great purity. Numerous attempts have been made to decompose this substance into its constituents, but all these processes are imperfect; either they are too expensive, or the decomposition is incomplete. M. Wachtel has already described several of these methods, so I shall only deal with those which he has passed over in silence.

M. Schulze proposes decomposing, by means of the electric arc, the residues from the treatment of the molasses, whether carbonates of barium or strontium. These products are mixed with carbon in the moist condition in which they are obtained, and the mass is well stirred during the fusion; there can be no doubt that a transformation takes place, and Schulze, in small experiments, obtained 90 per cent. of the oxide of barium treated, but this was perhaps rather carbide of barium, if we take into consideration the quantity of acetylene gas given off on its solution in water. According to the inventor the cost would be very low, but from analogy we might form a very different opinion; to prepare 100 kilos. of oxide of barium, about 20 kilowatt-days would be required; this represents 20 marks, reckoning the kilowatt hour at 4 pfennigs, and then we are allowing nothing for the wear and tear of the electrodes, nor the evaporation of the water present in the residues. Further, the apparatus has a stirrer which is supposed to be used at the temperature of the electric arc, about 3000 degrees.

Naturally, the carbonic acid formed is recovered; as for the oxide of barium, it forms very compact and hard greenish-blue masses, which the inventor of the process regards as necessary for the preparation of the binoxide. The Schenk-Bradley and Borrows-Jacobs method is approximately of the same value as the preceding one; by fusing, in the electric furnace, a mixture of heavy spar and carbon we ought to obtain a mixture of oxide and sulphide of barium. The separation of the sulphide must follow on this costly operation. To these two methods we may add that of Limb, according to which carbide of barium is prepared by fusing a mixture of sulphide of barium and carbon with a metal or a metallic oxide in the electric furnace. The carbide is decomposed with boiling water; this gives baryta, acetylene, and a residue of a metallic sulphide. All these "electric" methods seem to be based on the idea that everything can be done by electricity. The losses of original material caused by the high temperature of the electric furnace are sufficient to diminish the returns by these methods very considerably. To this must be added the intense action of oxide of barium in fusion on the sides of the apparatus, and the extremely inconvenient carburized impurities which are always to be found.

We have still to mention the practical value of a French process which consists of decomposing chloride of barium by means of oxide of zinc at a whitered heat. Chloride of zinc should be formed, which is volatilized and reused in the form of oxide, and porous oxide of barium. Leroy and Segay's process deserves more serious attention. Carbonate of barium is decomposed at 360 degs. by sulphuretted hydrogen, and the dry sulphide formed is treated, below a red heat, with a current of steam; in this manner oxide of barium and sulphuretted hydrogen are formed. It still remains to be seen whether this method can be worked in a practical manner on the large scale.

There is only one recent process for the decomposition of carbonate of baryta which has been proved by practical results. It can be easily worked on the large scale, and is cheap. It has been the cause of numerous interesting observations, and has caused the discovery of such interesting details that the trouble and difficulty of its invention has been to a great extent recompensed. It is an interesting fact that witherite, the natural carbonate of baryta, gives up its carbonic acid much more readily than does the artificial carbonate; therefore it is employed in certain German manufactories in spite of its slightly higher price. The installation of the process only requires comparatively simple apparatus. Two conditions are of especially great importance, viz., the construction of the furnaces and the regulation of the calcination.

The lining of the furnace with basic refractory material should be done with the greatest care if we wish the furnace to last; ordinary magnesic bricks are not at all suitable for this purpose on account of their feeble resistance. The furnace should be heated by means of gas generators; this method being the only one enabling the necessary variations of temperature to be made, which are essential to the success of the calcination. It is of great importance to be able to vary the temperature rapidly, then to increase it progressively. If the temperature is raised too rapidly, or becomes too high, volatilization, and consequently diminution of yield, takes place. By using 10 kilos. of carbonate and 125 kilos. of fuel, we obtain, on an average, 75 kilos. of oxide of barium.

In continuous working the calcination lasts about twelve hours, and no crucibles or similar apparatus are required. It is premature to give details of this process at present; it is simple in principle, but requires incessant watching. It is important to mention that by this method oxide of barium of 95 per cent. can be obtained. The product obtained is particularly suited for the preparation of a binoxide containing 90 per cent. of BaO_2 free from cyanides and nitrites. The oxidation is so easy that the peroxide can be obtained by the direct oxidation of carbonate of barium. The conduct of this operation on the large scale, however, offers certain mechanical difficulties; but the great advantage of this process is the joint production of the oxide and the binoxide of barium.

In the Hanover-Linden district a new installation has been erected at great expense for the manufacture of binoxide of barium from the oxide of barium made by the Bonnet, Ramel, Savigny, Giraud, and Marnas process. This method consists of calcining a mixture of carbon and carbonate of barium in a Hessian crucible lined with paper, or some substance that will form carbon, and carrying it to 1100 or 1200 degs. The oxide does not seem very suitable for the production of the binoxide; according to our experiments it is a greenish-gray mass of bad appearance, and does not contain a sufficient proportion of oxygen. Our results were confirmed by the fact that this method has been abandoned after long and costly trials. The authors of this process themselves did not consider it suitable for the preparation of the binoxide, since it only gave a product suitable for this purpose after dehydration and calcining with carbon and hydrate of baryta.

The state of this industry as a whole is flourishing, and the consumption goes on increasing. At the present time France produces and exports a large quantity of hydrate of baryta, but Germany also supplies considerable quantities. On the other hand, this latter country is the principal producer of binoxide of barium. England is a serious competitor with the German manufacturers of the binoxide; other countries are of no importance in this respect, and obtain their supplies from England and Germany. The present total annual production of binoxide of barium may be put at 10,000 tons. It is especially by its production of peroxide of hydrogen that it finds many uses as a bleaching and oxidizing agent.—Chemiker Zeitung.

Patents Granted.

702,015.—GLASS-DRAWING APPARATUS. John H. Lubbers, New Kensington, Pa. Filed Jan. 8, 1901. Issued June 10, 1902.

702,047.—PROCESS OF RENDERING METALLIC SULFIDS SOLUBLE. Caleb G. Collins, Woodmere, N. Y. Filed Aug. 26, 1901. Issued June 10, 1902.

702,063.—BOTTLE-WASHING MACHINE. Joseph Kayser, Philadelphia, Pa. Filed Sept. 20, 1901. Issued June 10, 1902.

702,081.—MANUFACTURE OF GLASS BY ELECTRICAL HEATING. August Voelker, Ehrenfield, Germany. Filed Sept. 27, 1900. Issued June 10, 1902.

702,117.—ART OF PRODUCING CHEMICALS IN ELECTRIC FURNACES. Edward R. Taylor, Penn Yan, N. Y. Filed Oct. 6, 1900. Issued June 10, 1902.

THE GRASSELLI CHEMICAL CO. Established 1839 CLEVELAND, OHIO
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HIGHEST SPECIFIC GRAVITY. SAMPLES SENT ON APPLICATION.
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PAINT MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 34.

Saturday Evening, July 5, 1902.

Midsummer dullness has settled over the market and the conditions prevailing in the paint and color trades during the interval since the date of our last reports have been as tame as they usually are at this time of the year. There were, in fact, no developments of a particularly interesting character in the absence of influences calculated to affect market values.

White Lead, Zincs, etc.

WHITE LEAD.—The past month was an unusually good one for the period of the year. Dealers and corroders all report sales in excess of last year and equal to any month since the year opened for the lead products. During the past few days it has slacked off, but this is not unusual when the week is broken by holidays, as business has virtually been suspended since Thursday last, grinders generally closing down for their usual clean-up, but this, however, will be shorter than usual, as they have plenty of orders on hand for early Fall delivery, which will require their prompt attention. Dry lead is not over plentiful in excess of regular contract deliveries, and what additional sales are being made are at 4¾@5c., as to make and quantity less the usual discount terms, though some of the less favored makes might be had a shade less. The demand for lead in oil is not so active as it was last month, but a fair amount is daily going into channels for consumption. In this section the strikes, which are in progress, have materially affected the consumption of lead in oil, but at nearby points and in the West trade has kept up well, considering the sharp competition which exists. Prices are fairly well maintained at 5¾c. and upward for special brands, and for others not so well known of either process at 5½c. less the usual discount of 2 per cent. Foreign makes of lead in oil are meeting with the usual jobbing demand at 9⅛@9⅜c. for the old established barrels and for others at 7c and upward, as to make and quantity.

RED LEAD.—Trade the past month has been unusually good and the deliveries of domestic have been larger than any month since the year opened. Stocks are light and held steady at 5¾@6c. as to make and quantity, less the usual discount terms. German is in better request for early Fall delivery at 6¾c. and upward, as to make, quantity and date of delivery. English is quiet, with more inquiry for general delivery at 6¾c. for ordinary and 7⅛c. and upward for extra grades, as to seller, brand and quantity.

LITHARGE. — Deliveries to the glass makers are practically over for the present, as about all of the works are shut down for their usual Summer vacation. The rubber makers, however, are busy and drawing freely upon their contracts of domestic, prices for which remain steady at 5½c. and upward, as to quantity, less the usual discount terms, for old process, and 5c and upward for quick process make, as to quantity and terms of sale.

ORANGE MINERAL.—Rather more demand is reported for French for early Fall delivery at 11⅛c. and upward, as to position of goods less the usual discount terms for special brands, and for other brands at 10½c. and upward, as to quantity and date of delivery. German is also in good request at 8¼@9c., as to grade, quantity and seller. English is in fair request at 8½c. and upward, as to grade and quantity. Domestic is in light stock and held firm at 7¾@8c., as to quantity, less the usual discount terms.

PIG LEAD.—The market both here and at the West has been quiet during the week, very little business outside of regular contract deliveries being done. Prices remain steady at St. Louis at $3.97½ and upward as to grade. In this section trading has been light at $4.12½ for common and $4.15@4.22½ for refined, as to quantity and seller.

ZINCS.—The past month was an unusually good month, the deliveries being in excess of any other month since the year opened. From now on for this month deliveries are expected to fall off, as many of the grinders are shut down for their regular Summer clean up. The export trade is good, and, taking trade as a whole, there is no cause for complaint. Prices remain steady at 4⅝@4⅝c., as to grade and terms of sale for the New Jersey makes.

Dry Colors.

REDS.

There was nothing new presented in connection with any of the red pigments. Naturally at this time of the year, the current requirements of consumption are at the minimum, and as it is too soon yet to consider the matter of providing for probable future wants, the market has a very quiet appearance. Importers, manufacturers and dealers accept the situation, and do not attempt to urge business. Consequently the steady undertone of the market is retained and prices are unchanged.

BLACKS.

There is a little more than the volume of business usual at this time of the year in carbon and lampblacks, although naturally the activity is not so pronounced as it was at the beginning of June and prior to that date. Prices rest on a steady basis, for, although there is keen competition among manufacturers, it does not take the form of a further curtailment of profits. For ivory and drop blacks there is comparatively little demand, but as a dull market is expected at this season, the fact is without influence on market values.

BLUES.

There is not much call for anything on the list at present. Business has kept up remarkably well, however, and the season now closing has been one of the best ever experienced, so far as the volume of trade, at least, is concerned. The fall season promises to be fully as prosperous, and the outlook is for a steady market all around.

BROWNS.

Trading in umber and siennas is confined within rather narrow limits, as the season of largest consumption is ended. However, with no pressure to sell from any quarter, the market has a very steady tone.

GREENS.

Though much less active the market for paris green remains very firm and stocks available for immediate delivery are almost, if not quite, as hard to get as they were earlier in the season. In chrome greens the movement is seasonably light, but prices are steadily maintained.

YELLOWS.

Occasional small orders come in for ochers, but the season has virtually closed, and for some weeks a quiet and uninteresting market is to be looked for. The undertone, however, is firm, and there is no prospect of any change in buyers' favor, particularly as the outlook for fall trade is excellent. We therefore continue to quote 1½@2c. for Rochelle, 3½@4c. for golden, 1¾@1⅞c. for washed French, 4¾@5c. for washed Dutch and $10@15 per ton, as to quality and quantity, for domestic.

Metallic Paints.

Since we last wrote the market has been rather quiet, though not more so than usual at this time of the year, and in fact trade is rather better than is generally the case at the beginning of July. There is a firm feeling as regards prices, and quotations are unchanged at $19.50@20 for brown and $16@18 for red metallic oxide.

Miscellaneous.

BARYTES.—In common with other lines, trade in this commodity has slackened very materially, and during the past week this market has been comparatively dull. There has, however, been no change in prices.

CHALK.—The market is quiet but very firm under limited offerings, $2.75 representing the price for sail and $3 that for steamer shipments.

CHINA CLAY.—The larger consumers appear to have well covered their wants, and the business passing is of a narrow, routine character. There is a steady feeling and quotations are maintained at $12@17.50 for English, as to quantity and quality, and $8.50@10 for domestic.

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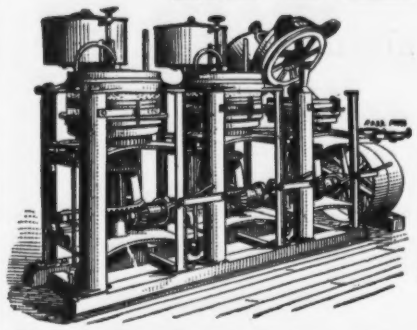

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PUTTY.—The movement is of the small volume, incident to the season and the market presents nothing that calls for special comment.

TALC. — Occasional jobbing sales make up the business in this commodity, but as activity is not looked for at this time of the year, the dullness has not affected market values to any appreciable extent.

TERRA ALBA. — Buyers' present wants are small, and as they are not anticipating future requirements, the market has a very quiet, tame appearance. There is no change to be noted in prices, the tone of the market being steady.

WHITING.—Some deliveries on contracts remain to be made, but there is very little new business for either prompt or future delivery being booked just now. Prices have a steady support, however, and we have to repeat our quotations of 40@60c. for commercial, 45½@65c. for gilders', 65@68c. for extra gilders', 65@67c. for American Paris white, and 90c.@$1.10 for English cliffstone.

Glues.

The usual dullness incident to the midsummer season has taken possession of the market, and we find nothing interesting to record in connection with either domestic or foreign glues. Prices are more or less nominal.

Varnish Gums.

We have still to report a very firm market for all descriptions of varnish gums, Kauries particularly being in a strong position. Naturally at this season of the year the demand is not urgent, but there is still a good deal of business being done, and no opportunity is afforded for accumulations of stocks.

Window Glass.

The market has been very quiet, even for a short week, but the tone is firm and an early advance in prices is looked for.

The Bertin Enamel Varnish.

The production of this varnish, which bears the name of its inventorl, consists:—

1.—In the employment of a liquid hitherto resistive to the manufacture of varnishes (mineral oil), after a chemical treatment which renders it suitable for this use.

2.—In a treatment of the resins employed in the manufacture of varnishes.

For a quantity of ten liters of the oil sold in trade for lighting purposes, 250 grams of quick-lime are reduced to powder, as well as 50 grams of manganese bi-sulphate; these two products are perfectly mixed by means of a sieve.

This mixture is placed at the bottom of a wide-mouthed receiver and slightly moistened with water. As soon as the mixture begins to be heated, and before the complete fusion of the lime, the precise moment being important, the oil is poured into the receiver, taking care not to separate the powder. The continuance of the oil on the mixed lime and manganese should be from 24 to 36 hours, until no globules are produced. Then the whole mixture is shaken quickly and left to repose until the liquid is clarified.

The operations should be conducted at a distance from any flame, the mixture in consequence of the nitrated gases in the oil, being extremely detonating.

By this treatment, according to the author, nitrogen gas is present in quantity, and is free from heavy non-drying oils, which fall and then may enter into mixture with the resins without preventing the drying.

The dry resins, reduced to powder, are dissolved in boiling water.

A part of these resins falls to the bottom of the receiver, while the other part floats.

By pushing the ebullition of the resin in the water, the supernatant resinous part diminishes in volume, in proportion as the oils containing the resin are evaporated. This point is important, because, for siccative varnishes, only the heavy part of the resin, from which all the oil has been eliminated, can be employed.

For the purpose of freeing the resin from the salts of magnesia or other salts, there is added to the water made use of 5 per cent. of sodium hyposulphate.

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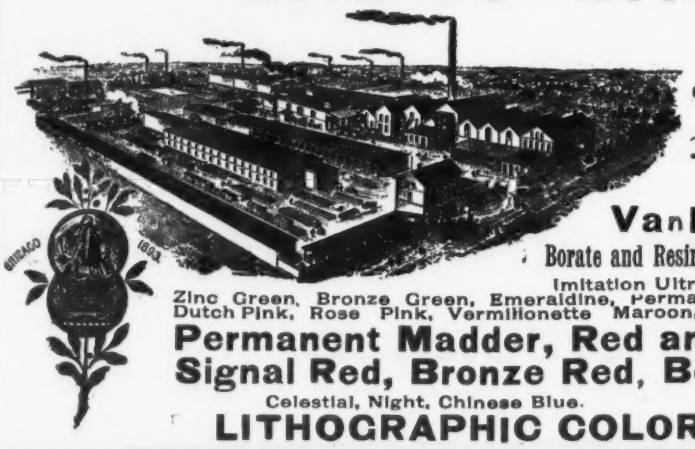

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BAILEY PROCESS WHITE LEAD ("Old Dutch" perfected) bears one brand, and one only. When you buy it you know not only that you have the best lead that can be made by any process, but also that the manufacturers of it will not meet you in competition with some other brand advertised also as "the best" and "only genuine." The same Bailey Process White Lead ("Old Dutch" perfected) is sold in Chicago as in New York, so the makers cannot use a New York brand to break the Chicago market, and *vice versa*.

The lesson of this is clear; the profit on lead to the dealer is small enough when he gets "all there is in it;" but when he is "buncoed" by the manipulations and combinations made possible by an easy conscience and a dozen or more "brands" the little he has is taken away from him.

We repeat: Bailey Process White Lead ("Old Dutch" Perfected) is not only the best and most satisfactory Lead ever put on the market, but it sails under one flag only; it is free from piratical trickery.

White Lead.
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Linseed Oil.

The Union Lead & Oil Co.

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Factory, 81 Front Street, Brooklyn, N. Y.

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LOUISVILLE, KY., U. S. A.
Cable Address, "REFINERY," LOUISVILLE.

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Yellow and White "Miners'" Oil.
Crude C. S. Oil, "Red Star" Soap, Soap Stock.

SPECIALTIES:

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"SNOWFLAKE" PRIME SUMMER WHITE. "NONPAREIL" SALAD OIL.

CAKE, MEAL, LINTERS, ASHES, HULLS.

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Cotton-seed Products

Oil, Cake, Meal, Linters, Ashes, Hulls.

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BLEACHED,
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CALCUTTA RAW,
CALCUTTA VARNISH,
CLEVELAND RAW,
SPECIAL "A,"
CLEVELAND VARNISH,
LEAD GRINDER'S OIL,
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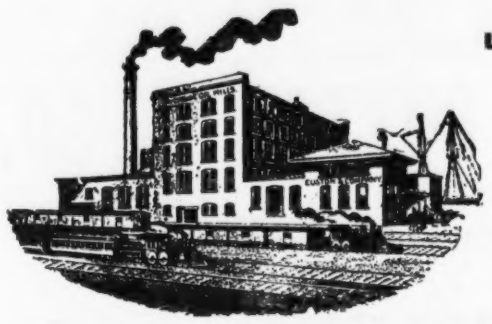

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Specialties:

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YELLOW AND WHITE MINERS' AND SOAPMAKERS' OILS,
"IDEAL" PRIME SUMMER WHITE FOR COMPOUND LARD.
"LOUISVILLE" STAR SOAP.

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Tank Cars Free for Sales or Purchasers
CODES USED:
Private, Twentieth Century
and A-B-C Fourth Edition.

LOUISVILLE, KY. U. S. A.

OIL MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 34.

Saturday Evening, July 5, 1902.

Vegetable Oils.

LINSEED.—There is practically no change in the situation since our last report. What we said then will cover the subject for this week. As usual, when holidays intervene, trading is more or less affected. The only item of interest has been the free offering of second-hand lots for prompt at 64@65c. to the retail dealers, which has checked the demand somewhat from crushers, who still maintain their previous quotations of 66c. for Western and State oil, and 67c. and upward for city makes, as to the size of the order. Nothing doing in new crop oil, as neither buyers nor sellers appear anxious to do business.

COTTONSEED.—The market has had through the week rather a better undertone. It has been brought about more by the recovery of prices of some associated fats than from direct influences of demands and supplies. Indeed, it has been very hard to sell the oil in material quantities, notwithstanding that the jobbing business has been more general and of a fairly satisfactory order. The advancing tendency of lard has tended to start up the inquiries from the smaller consumers of the oil, but it has not, as yet, invigorated the business in the compounds or in the soap trade. Until the large consumers of the oil over the West become interested over taking it there is little probability of its market values sympathizing with higher pure lard prices. There is no reason for the compound people to be exercised over the oil in the condition of business for manufactured goods. The cost of compound lard is remarkably cheap to consumers, by reason of more general competition over selling it; it has been through the week as low as 7⅞c., in some channels of distribution here, however that, up to 8⅛@8¼c., were asked by most workers. With these low prices, and the cost of oleo stearine at 13c, there would naturally be hesitancy over buying cotton oil at its current prices. Yet home demands must be depended upon in the near future for the oil, since there is no prospect of material export interest, if stocks of it are to be worked down sufficiently for control of prices of the product to a firmer basis. It seems strange to many traders that the compounds are not more freely taken by their distributers, in consideration of the fact that they are undoubtedly being consumed as freely as at any time through the year, and that their value is from ⅝c. to ⅞c. lower than that obtained only a few weeks since, while the cost of pure lard is greater than these. But we regard the compound business as only awaiting a more secure pure lard market for development of activity. The advancing tendency of the pure lard market came easily early in the week and it is considered that the packers have good control of it; but it is thought, as well, that as there has been undue excitement this week over the grain markets that hog products have in part sympathized with it; therefore that possibly the packers are not as yet ready for prolonged strength over the hog products, whatever may develop for them before the fall season is reached. There seems an impression that the packers will be more interested over taking in hog supplies for a while than in permanently supporting prices for their products unless the damage to the wheat crop by the recent rains should prove of a marked order, and by which corn would, in some degree, be influenced, as aside from the speculative temper in it for higher prices against a "short" interest. If the grain markets are to be further lifted in price there is little question but that hog products' markets would dismiss other than speculative features; therefore that they would be arranged to a more confident line of prices. To secure strong prices and activity for cotton oil it is necessary to have a permanently firm lard market. However, some other fats have made an advance this week by reason of the course of the lard market, and the consumers have been taking them more freely with confidence that bottom has been touched. Thus tallow has gone up ⅛c.; selling in New York at 6¼c. for city made, in hogsheads, while Chicago has cleaned up its holdings and asks at least 7⅜c. for the prime packers' grade. It cannot be said that the business in soaps has materially improved, but only that their makers have been willing to accumulate some of the raw materials at their late prices, and there are hopes that cotton oil will soon share in the demands of soap buyers. It is always difficult to get the soap makers interested over cotton oil in an easy tendency of the tallow prices, no matter the unusually more favorable trading basis of the oil against the beef fat; but there is reason now for believing that the home soap trade will soon become interested over the oil, not only because of the firmer tendency for tallow, but because of the reduced accumulation of the oil in its hands. There are no signs of material export interest for the oil. Marseilles and Rotterdam have wanted some limited quantities at a fraction more money than in the previous week, but they are still materially under a trading basis. There are no sellers of prime yellow here under 44½c., and the bids from these foreign sources are hardly better than 43½c. It would seem as if considerable oil would have to be moved to the other side before the new season, and that home demands could not take care of

The
Procter & Gamble Co.

Refiners of All Grades of

COTTONSEED OIL

Marigold Cooking Oil
Puritan Salad Oil

Aurora, Prime Summer Yellow
Boreas, Prime Winter Yellow
Sapho, Summer White "Miners"
Neptune, Off Winter Yellow
Venus, Prime Summer White
Jersey Butter Oil

Tank Cars Free to Purchasers

Cable Address: Procter, Cincinnati, U.S.A.
Office: CINCINNATI, O.
Refinery: IVORYDALE, O.

the supplies closely. There is an effort here and there to sell the new crop oil to European markets, and perhaps some business has been done in the new crop winter yellow on the basis of 64 francs in Marseilles and which would mean, for that class of oil, 40c., or slightly under, in New York, for October to March deliveries together. New crop prime yellow, November to January deliveries has 38c. bid from a few foreign sources and 40c. bid for October, and it is offered at 41c. New crude, in tanks, is offered at the southeast mills at 31c. more freely, and fewer buyers at that, with some bids hardly more than 30c. for even October delivery. New Orleans has been offering old crop prime yellow, good off grade at 40½c., with bidding 1c. under that. A refiner in New York bought 10 tanks choice yellow, bleaching grade, at 42c. here. Other sales are 500 barrels good off yellow, in New York, at 43c.; 400 barrels ditto, at 42½c.; 1,500 barrels prime yellow, in lots, on the spot, at 44½@45c.; 600 barrels ditto, at 44½c.; 1,000 barrels ditto, July delivery, at 44@44½c.; 500 barrels ditto, August delivery, at 44@44½c.; 800 barrels white, at 47c., and 500 barrels winter yellow, at 47½c. The mills have sold 20 tanks new crude, October and November deliveries, at 31c., and New Orleans, equal to 1,200 barrels old off grade crude at 33c.

EXPORTS OF COTTONSEED OIL FROM NEW YORK, BY COUNTRIES.

	For week ending July 3, 1902.	Since Sept. 1, 1901.	Same time last year.
Africa, Algiers	....	2,790	13,090
Egypt	....	.....	730
South	....	653	580
West Coast	....	.....	100
Argentine Republic	....	819	2,280
Australia and N. Z.	....	942	2,725
Austria	449	21,144	41,425
Belgium	....	6,119	9,463
Brazil	10	20,114	18,799
British East Indies	....	16	226
British Guiana	....	1,624	1,795
British West Indies	24	4,818	4,366
Central America	1	50	86
Chili	....	672	459
China	....	5	10
Cuba	....	685	875
Danish West Indies	....	130	119
Denmark	423	5,461	3,690
Dutch Guiana	....	3	14
Dutch West Indies	....	6	28
Ecuador	....	31	3
England	770	18,277	42,387
France	....	67,125	88,775
French Guiana	....	182	160
French West Indies	....	7,526	8,037
Germany	410	14,627	13,676
Gibraltar	....	350	1,825
Italy	....	18,900	57,165
Japan	....	1	105
Malta	....	1,514	2,478
Mauritius	....	1,380	.....
Mexico	2	221	311
Morocco	....	.....	75
Netherlands	60	17,652	28,794
Newfoundland	....	602	430
Norway and Sweden	125	1,860	1,861
Nova Scotia	....	33	29
Peru	....	24	27
Porto Rico	....	26	111
Portugal	....	.....	24
Russia	5	255	.....
San Domingo	....	2,322	2,030
Scotland	....	4,388	4,574
Turkey	....	90	2
U. S. Colombia	30	490	642
Uruguay	75	3,928	4,089
Venezuela	....	28	22
Total, bbls.	2,374	228,081	359,595

EXPORTS OF COTTONSEED OIL FROM NEW ORLEANS, BY COUNTRIES.

	For week ending July 3, 1902.	Since Sept. 1, 1901.	Same time last year.
Austria	....	4,067	29,865
Belgium	....	50	3,865
Cuba	....	25	.....
Denmark	....	7,250	8,535
England	500	8,708	18,728
France	....	40,422	76,989
Germany	400	6,722	6,023
Ireland	....	1,300	1,793
Italy	....	600	100
Netherlands	....	54,150	75,960
Scotland	....	700	5,139
Total, bbls.	900	123,994	226,995

EXPORTS OF COTTONSEED OIL FROM BALTIMORE, BY COUNTRIES.

	For week ending July 3, 1902.	Since Sept. 1, 1901.	Same time last year.
Belgium	....	.....	515
England	....	100	3,275
France	....	.....	2,206
Germany	....	3,563	24,463
Ireland	75	75	.....
Netherlands	.....	10,304	26,160
Scotland	....	.....	1,368
Total, bbls.	75	14,042	57,987

EXPORTS OF COTTONSEED OIL FROM GALVESTON, BY COUNTRIES.

	For week ending July 3, 1902.	Since Sept. 1, 1901.	Same time last year.
Belgium	....	.....	1,040
Denmark	....	999	.....
England	....	1,575	400
France	....	10,099	23,928
Germany	....	200	3,718
Ireland	....	.....	450
Italy	....	.....	300
Mexico	2,583	25,225	15,576
Netherlands	....	40,965	41,213
Total, bbls.	2,583	79,063	86,625

NATIONAL STARCH COMPANY

DIAMOND

CORN OIL

NEW YORK.

U. S. A.

TRINITY COTTON OIL CO.

Manufacturers and Refiners of

COTTONSEED OIL

DALLAS, TEXAS, U.S.A.

Cable Address: "TRINITY."

SOUTHERN COTTON OIL COMPANY

Head Office, 11 Broadway, NEW YORK.

Mills and Refineries in Georgia, North and South Carolina, Alabama, Tennessee, Arkansas, Louisiana and Texas

MANUFACTURERS OF ALL

COTTON SEED PRODUCTS

OIL, CAKE AND MEAL, HULLS, LINTERS, SOAP STOCK AND SOAP.

REFINERS OF COTTON OIL. ALL GRADES.

MANUFATURERS OF

LARD COMPOUND

Refineries located at—Savannah, Augusta and Atlanta, Ga.; Charleston, S. C.; Charlotte, N. C.; Montgomery, Ala.; Houston, Tex.; New Orleans, La.; Memphis, Tenn.; and Little Rock, Ark.

TOTAL EXPORTS AT PRINCIPAL PORTS.

From—	For week ending July 3, 1902.	Since Sept. 1, 1901.	Same time last year.
New York	2,374	228,081	359,595
New Orleans	900	123,994	226,995
Baltimore	75	14,042	57,987
Galveston	2,583	79,063	86,625
Total, bbls	5,932	445,180	731,202

The following are the official returns of the exports of cottonseed oil, in gallons, during the months of May, 1902 and 1901, furnished by the Bureau of Statistics, Washington:—

	1902.	1901.
Baltimore	198,000	116,000
Boston	6,434	45,663
Brazos de Santiago	.....	5,380
Champlain	139	.....
Corpus Christi	23,000	40,155
Detroit	67,666	43,269
Galveston	412,000	70,888
Huron	16,322	14,703
Memphremagog	.....	214
Mobile	13,111	.....
New Orleans	488,242	1,509,946
Newport News	277,420	55,500
New York	942,787	1,771,179
N. & S. Dakota	3,488	.....
Philadelphia	12,965	90,000
Saluria	48,365	224,977
San Francisco	548	.....
Savannah	263,368	.....
Vermont	1,722	3,654
Total gallons	2,775,577	3,991,528

TOTAL MONTHLY STATEMENT.

	1899.	1900.	1901.	1902.
Jan.	8,280,487	7,100,740	6,089,587	6,089,587
Feb.	5,427,822	4,185,033	6,280,992	2,201,340
March.	4,916,440	4,133,688	5,251,955	2,272,824
April.	3,482,987	3,056,532	4,994,895	2,255,273
May.	2,408,458	3,012,760	3,991,528	2,775,577
June.	2,541,592	2,041,088	2,339,703	.....
July.	2,577,454	1,289,595	1,852,602	.....
Aug.	3,106,770	3,154,303	1,843,434	.....
Sept.	2,276,515	2,202,682	1,535,701	.....
Oct.	3,915,809	2,805,504	3,837,162	.....
Nov.	3,926,035	4,788,607	4,371,917	.....
Dec.	6,538,519	6,168,279	4,795,760	.....
Total	49,507,888	44,538,756	47,005,231	.....
Av'ge	4,125,151	3,711,563	3,917,103	3,118,920

(Special Cablegram to the Reporter.)

Liverpool Cotton Oil Market.

Liverpool, July 4, 1902.

Cotton oil, £26 10s.; cake, £6; meal, £6; seed, £7; per ton, c. i. f. Liverpool. Oil is stupid under bull and bear attacks. Cake and meal are steady. Seed is idle.

(Special Cablegram to the Reporter.)

Rotterdam Cotton Oil Market.

Rotterdam, July 4, 1902.

There is scarcely any demand. Butter oil, June-September shipment, 34 florins; prime summer yellow, for June-September shipment, 34 florins per 100 kilos, c. i. f. Rotterdam.

(Special Cablegram to the Reporter.)

Trieste Cotton Oil Market.

Trieste, July 4, 1902.

Demand is light. Prime summer yellow, immediate shipment, 70 francs; off yellow, 68 francs; butter oil, 73½ francs per 100 kilos, c. i. f. Trieste.

Cocoanut Oils, Etc.

CEYLON.—The market is firmer under cables reporting a stronger foreign market. Small sales are reported on the spot at 7¼@7½c., as to quantity and seller, but at the close 7½c. was generally asked. For July-August arrivals a limited quantity might be had at 7⅛,c. but 7¼c. is generally quoted.

COCHIN.—In sympathy with a firmer tallow and grease market, prices are firmer for spot lots at 8¼@8½c., as to quantity. The offerings for July-August arrivals are restricted and it is doubtful if better than 8¼c. could now be done.

CORN.—There has been considerable business done for July and early August delivery at 6.30c., and while this was quoted for further parcels, only a limited quantity was offered for July. For jobbing store parcels 6⅜@6½c. is named, as to quantity and seller.

OLIVE.—There has been a slight improvement in the demand for prompt and sales have been made of several round lots at 53@55c. for yellow, and 54@55c. for choice green. Shipments are also firmer at 52½@53c., as to quality and date of arrival. Olive foots on the spot are held steady at 5¼@5⅜c. for choice grades, and for arrival at 5¼c.

PALM.—The market is steadier with less pressure to sell; also in sympathy with cables reporting a stronger Liverpool market. Early in the week sales were made of red oil on the spot at 5¼c., and bids of 5½c. were bid for 50 tons delivered in Pittsburgh, but 5⅝c. was the lowest named. At the close 5½@5¾c. was generally asked for spot lots. When the holidays are over it is predicted the situation will improve.

PEANUT.—Only a small retail demand is reported for spot lots at 6¾c. for prime yellow. White oil is not offered at the moment.

RAPE.—The usual jobbing demand is reported for store parcels at 71@72c. for choice burning grades, and 68@69c. for blown and refined, as to quantity and seller.

Animal and Fish Oils.

COD.—Nothing but small jobbing sales have been reported, but prices rest on a steady basis and we continue to quote 36@37c. for Newfoundland and 33@35c. for domestic, as to quantity and seller.

DEGRAS.—The wants of consumption as usual at this season are light, but stocks are not being urged and the steady tone of the market is retained. German is held at 3¼@3½c, English at 3⅜@3½c. and French at 5@5¼c., as to quantity.

LARD OIL.—The market for prime has been gradually hardening all the week, although the demands of consumers have been kept within rather narrow limits. At the beginning of the week 79c. would have been accepted by some holders, but toward the close 81c. was named as an inside price, and not much oil was offered at that, some brands being held at 83@84c. In off grades there has not been much business, but the market has been firm and we have no change in quotations to record.

MENHADEN. — There is still no crude on the market so far as we can learn, as the current output appears to be all deliverable on contract. The fishing down East along the coast and in the Sound is reported to have been very good and the yield of oil shows marked improvement. On the North Carolina coast, however, the results have been poor, the fish giving little or no oil—in fact, fishing in the South so far has been disappointing. There were 200 barrels of fish oil exported to Hamburg during the past week. In the manufactured grades business is of the average proportions for this time of year and prices are maintained.

NEATSFOOT.—No business of consequence has been done in any grade during the interval, but the steady tone of the market is maintained, and prices remain as heretofore quoted.

RED.—Supplies continue light, but in the absence of important demand prices are more or less nominal at 6½@6¾c. for saponified and 42c. for elaine.

WHALE AND SPERM.—No business in crude has been reported, the stock in New Bedford at last advices still consisting of 1,370 barrels. The manufactured grades are quiet and unchanged.

TALLOW OIL.—The market remains firm, at the advance noted in our last, though there has been comparatively little business done during the interval. We quote acidless at 70@75c. and ordinary prime at 65@66c.

Mineral Lubricant.

The movement has been confined almost wholly in jobbing lines, but has been of satisfactory volume in the aggregate. The market has a firm tone and prices have not changed.

Oil Cake, Meal, Etc.

There has not been sufficient demand the past week to test the market. Spot linseed cake is offered at $27, with $26.50 bid for a limited quantity. Futures are offered at $27.50, but no business is reported. Cotton cake and meal new crop is a shade easier, but exporters and sellers are apart.

Exports of Flaxseed from New York.
BY COUNTRIES, IN BUSHELS.

	For past week.	Since Aug. 1, 1901.	Same time 1900.
Belgium	....	580,138	119,509
Denmark	....	41,891	32,752
England	....	467,179	218,265
France	....	286,595	24,912
Germany	....	167,245	537,205
Netherlands	....	507,038	732,202
Scotland	....	17,218	346
Totals	....	2,067,304	1,665,233

Exports of Flaxseed from Boston.
BY COUNTRIES, IN BUSHELS.

	For past week.	Since Aug. 1, 1901.	Same time 1900.
Belgium	....	.....	58,603
England	....	208,818	178,377
Netherlands	....	314,383	77,190
Scotland	....	16,708	.....
Totals	....	539,909	314,260

Exports of Flaxseed from Philadelphia.
BY COUNTRIES, IN BUSHELS.

	For past week.	Since Aug. 1, 1901.	Same time 1900.
England	....	37,429	.....
Netherlands	....	182,147	.....
Scotland	....	.....	16,634
Totals	....	219,576	16,634

Exports of Flaxseed from Baltimore.
BY COUNTRIES, IN BUSHELS.

	For past week.	Since Aug. 1, 1901.	Same time 1900.
England	....	.....	.....
Ireland	....	.....	.....
Netherlands	....	76,490	135,483
Totals	....	76,490	135,483

From Duluth by Steamer.

To England		966,614	.....

Exports of Flaxseed from Montreal.
BY COUNTRIES, IN BUSHELS.

	For past week.	Since Aug. 1, 1901.	Same time 1900.
Belgium	....	.....	25,202
England	....	.....	16,774
Totals	....	.....	41,976

Wax, Lard, Tallow, Etc.

PARAFFINE WAX.—For a short week the export movement was satisfactory, the average of the past month being maintained. The total shipment amounted to 919,659 pounds. Home trade is fair for the season, and the steady tone of the market is retained, the principal manufacturers quoting as follows:—Crude 117 deg. melting point, 5c.; 134 deg. m. p. (yellow), 4¾c.; refined, 120 deg. m. p., 5½c.; 120 deg. m. p., 6½c.; 130 deg. m. p., 7½c.; 135 deg. m. p., 9c., and 140 deg. m. p., 13@13½c.

TALLOW.—There has been considerable business done during the week at 6¼c. for city, and at the close this was bid for further lots, with 6⅜c. asked for hhds. and 6½@6⅝c. for tierces. The tendency is upwards.

GREASES.—The market, in sympathy with an improved tallow demand, is firmer all around. House and bone are held steady at 5¾@6c.

OLEO STEARINE.—There has been a large business done here, and at the West the sales aggregated 600 to 700,000 lbs. at 13c., now asking 13¼c.

The Price of Lard at Chicago.

June.	Cash.	July.	Sept.
28.	10.47½@10.50	10.52½@10.57½	10.57½@10.62½
30.	10.52½@10.55	10.55 @10.62½	10.52½@10.65
1.	10.67½@10.70	10.60 @10.72½	10.65 @10.75
2.	10.67½@10.72½	10.67½@10.72½	10.67½@10.75
3.	10.72½@10.75	10.65 @10.75	10.67½@10.75
4.	—@—	—@—	—@—

If you desire to be brought in contact with the makers of machinery which enters into the manufacture of chemicals, drugs, paints, dyestuffs, fertilizers, naval stores, varnish, white lead, cotton oil, linseed oil, lubricating oil, etc., we would respectfully refer you to the Machinery Department of this publication, which you will find on page 23. Any special information that may be desired will be gladly furnished upon application, for we are in a position to place prospective purchasers in direct communication with the manufacturers of machinery of all kinds.

The Analysis of Cod Oils for Tanning Purposes.*

Industry.

BY S. R. TROTMAN, M. A., AND H. PETERS, A. L. C.

Some time ago our attention was drawn to a resinlike substance which was thrown down when tallow was mixed with a cod-oil obtained during the process of chamoising.

This body was formed in such quantity as to render the use of the oil impossible. It was found, upon analysis, to be almostly completely saponifiable,

*Paper read at a recent meeting of the Nottingham Section of the Society of Chemical

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and was characterized chiefly by the presence of large quantities of hydroxy acids.

It was undoubtedly an oxidation product, but was not identical, in our opinion, with degras former. At a later date we hope to be in possession of the exact nature of its acids, but having satisfied ourselves that it was almost entirely an oxidation product, we proceeded to the study of the question which was originally put to us, viz.: Can one foretell by analysis of the original cod-oil whether this resinous substance is likely to be produced or not? Cod-oil has been shown to contain considerable but varying quantities of unsaturated acids, notably, jecoleic, which readily yield hydroxy acids upon oxidation. The determination of these acids would perhaps yield all the information required, but as yet we have not been able to do this satisfactorily, and the operation would in any case be long and troublesome. Experiments in this direction are being carried out, but in the meantime we have collected some facts connected with the ordinary constants of the oil which are of interest. The chief analytical constants of the oil were:—

	P. Ct.
Acid value	22.58
Iodine value	448.0
Saponification value	186.0

Of these constants, the acid number varies between somewhat too narrow limits to be of much use, and the iodine absorbed varies so much with the conditions of the experiment as to be of comparatively small value as the basis of an opinion.

Since the resinous matter consists chiefly of oxidized acids, it occurred to us that the measurement of the power of absorbing oxygen whch an oil possesses would give a rough but useful indication of its value for tanning purposes. The advantage of such a determination is that it is an attempt to measure a reaction which we know does occur during the use of the oil, and of which the excessive occurrence is shown to be prejudicial.

In the first instance, the hydroxy acids were determined by Jean's process, after exposing the oil to the action of the air at about 100 deg. C. for some hours. In this way 8.8 per cent. was obtained, while in other samples, which had given good results in chamoising, the percentage never rose above 2. The process, however, is rather difficult to manipulate, and was discarded in favor of the measurement of the oxygen absorbed when the oil was treated with excess of permanganate. Various methods were tried—e. g., in presence of acid and alkali—and rejected, and finally the following was adopted:—

From 0.5 to 1 grm. of the oil was weighed out into a flask or bottle of about 400 c.c. capacity, 150 c.c. of water added, and the whole agitated to mix the oil well into the water; 25 c.c. of normal permanganate solution was now added, and the whole well shaken, to form as homogeneous a mixture as possible. This was allowed to stand for two hours, with frequent and vigorous shakings. At the end of the two hours a black precipitate settled out. The solution was now filtered into a 250 c.c. flask, and made up to the mark; 50 c.c. of this were titrated with a solution of ferrous sulphate of about normal strength. Alongside the experiment a blank was done in a similar way. The difference between the two titrations gave the amount of permanganate oxygen used to oxidize the oil.

A number of oils which we have examined gave the following data. Where we could ascertain it, we have inserted the nature of the oil from a manufacturer's point of view, and it will be noticed that as the oxidation rises the oil becomes less suitable for chamoising.

The wide difference between the oxidation numbers we obtained renders it possible to draw a line between suitable and unsuitable oils. As far as we can judge, any oil which has a higher oxidation number than 30 as shown, is unsuitable for the leather industry.

		Oxidation Value.	Iodine Value.	Saponification Value.	Acid Value.
1	Used with good results	10.1	130	180.2	21
2	Used with good results	12.5	129	179.2	18
3	Used with good results	14.6	108	219	4.1
4	Used with good results	26.5	88	153	19.3
5	Used with good results	25.1	211.1	165	15.7
6	Used with good results	19.2	166	143	6.04
7	Found unsuitable in use	46.8	376	184	22.6
8	Found unsuitable in use	63.7	350	179.5	20.42
9	Found unsuitable in use	90.9	448	186	22.6
10	Found unsuitable in use	77.7	364	179	27.4
11	Rejected by tanner on inspection	85.2	111.9	204	16
12	Rejected by tanner on inspection	46.8	376	184	22.5
13*	No history	43.7	156	184	21.3
14*	No history	33.1	161	180	18.1
15*	No history	32.1	155	207	7.1
16*	No history	30.1	100	201	5.47
17*	No history	53.6	97.2	171	6.7
18*	No history	10.4	130	210	4.6

*Samples of genuine cod oils obtained from manufacturers.

Parties desiring to be brought in contact with concerns who offer bargains in machinery are respectfully referred to page 27 of this issue.

If you desire to be brought in contact with the makers of machinery which enters into the manufacture of chemicals, drugs, paints, dyestuffs, fertilizers, naval stores, varnish, white lead, cotton oil, linseed oil, lubricating oil, etc., we would respectfully refer you to the Machinery Department of this publication which you will find on page 23. Any special information that may be desired will be gladly furnished upon application, for we are in a position to place prospective purchasers in direct communication with the manufacturers of machinery of all kinds.

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NAVAL STORES.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 34.

Saturday Evening, July 5, 1902.

SPIRITS OF TURPENTINE.—Under liberal supplies and an indifferent demand the tendency of the market has been downward all the week and the close was dull and weak at a considerable decline. On Tuesday and Wednesday buyers showed more interest than for some time previously, owing to the willingness of holders to meet them, and sales aggregating some 700 or 800 barrels were made on the basis of 48c. and 47¾c. for machine barrels. Subsequently free offers to sell the latter at 47½c. met with little or no response. The depression here was materially assisted by the bearish news from Savannah, which became more pronounced as the week advanced. Receipts from the interior are reported to be more liberal, but there are indications of renewed manipulations against July shorts. Closing quotations here were 47c. for southern and 47½c. for machine barrels.

ROSINS.—The market has been quiet throughout the week, comparatively little interest being shown in any grade. The tone of the market, however, is steady and there has been little variation in prices during the interval.

TAR AND PITCH.—Trade has been rather slow in both commodities, but prices have been maintained on a steady basis, tar being quoted at $1.85@1.90 for regular and $4.25@4.35 in oil barrels, while pitch is held at $1.70@1.80, as to quantity.

Receipts and deliveries of naval stores for June, 1902:—

	Rosin.	Spts. of Turp.	Tar.
Stock in yard May 31, 1902	25,691	1,043	2,343
Receipts during month:			
Brunswick, Ga.	3,786	150	....
Savannah, Ga.	345	2	....
Wilmington, N. C.	416	1,283	929
Georgetown, S. C.	3,803	1,275	325
Charleston, S. C.	289	....	....
Jacksonville, Fla.	2,912	1,962	....
Old Dominion Line	686	266	86
Gulf ports	6,202	1,457	....
Totals	18,639	6,395	1,340
Deliveries during month	15,787	4,647	1,388
Stock in yard June 30, 1902	28,543	2,791	2,295

STOCKS ON HAND.

	Spirits. Bbls.	Rosin. Bbls.	Tar. Bbls.
New York, July 3	2,652	31,174	2,837
Wilmington, July 1	973	32,445	2,641
Savannah, June 30	14,631	91,618	....

New Orleans, July 4.

Receipts—Rosin, 55 barrels.

Savannah, Ga., July 3.

Turpentine firm, 44⅜c; receipts, 1,274; sales, 1,686; exports, 1,270. Rosin firm; receipts, 3,232; sales, 2,050; exports, 3,638. Quote: A, C, D, E, $1.25; F, $1.35; G, $1.40; H, $1.70; I, $2.05; K, $2.55; M, $3.05; N, $3.40; WG, $3.45; WW, $3.60.

Wilmington, N. C., July 3.

Spirits turpentine—Nothing doing; receipts, 97. Crude turpentine firm, $2.50@2.60; receipts, 164. Rosin steady, $1.10@1.15; receipts, 244. Tar firm, $1.50; receipts, 94.

Charleston, S. C., July 3.

Turpentine and rosin unchanged.

Liverpool, July 4.

Turpentine—Spirits dull, 35s. Rosin—Common steady, 4s. 3d.

London, July 4.

Turpentine—Spirits, 34s. 9d. Rosin—American strained, 4s. 9d.; fine, 9s.

If you desire to be brought in contact with the makers of machinery which enters into the manufacture of chemicals, drugs, paints, dyestuffs, fertilizers, naval stores, varnish, white lead, cotton oil, linseed oil, lubricating oil, etc., we would respectfully refer you to the Machinery Department of this publication, which you will find on page 23. Any special information that may be desired will be gladly furnished upon application, for we are in a position to place prospective purchasers in direct communication with the manufacturers of machinery of all kinds.

Joseph Benson Rose, for many years prominently known in the drug trade and formerly president of the Royal Baking Powder Company, died suddenly last Friday morning at the Hotel Savoy. Mr. Rose arrived here on Wednesday from Orange Springs, Miss., having been taken ill on the train, and he complained of feeling ill when he got to the Hotel Savoy. Mr. Rose was about 63 years old. He came to this city about forty years ago and once was associated with McKesson & Robbins. Mr. Rose was born in Ohio. His wife died about ten years ago, and their only child, George Rose, lives in New Orleans.

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The new and essential feature of this process consists in incorporating and mixing at first, and without the addition of any sweetening matter, of the yolk of eggs with any butyrous fat, so as to prepare a kind of egg milk or butter; then, in mixing this product with the margarine fats in such a manner as to secure the intimate incorporation or perfect distribution of the egg yolk in the final product.

In consequence of this intimate incorporation or distribution, the milk and egg yolk are much better connected with the constituents parts of the margarine, so that, with this process, the cooling or washing water, with which the final product is to be treated, flows off in a state but slightly clouded. The beating of the milk or cream, with the egg yolk and egg fat, the substance of the egg as well as of the milk, and the introduction of the fatty matters connects the components, which cannot be butyrified, while allowing the absorption or utilization of all the valuable constituents of the lactic liquid.

Patents Granted.

702,178.—PROCESS OF TREATING PIGMENTS AND PRODUCT PRODUCED BY SUCH PROCESS. William N. Blakeman, Jr., New York, N. Y. Filed Aug. 6, 1901. Issued June 10, 1902.

702,235.—FISH-DRYING APPARATUS. Albert Morris, Reedville, Va. Filed Feb. 27, 1902. Issued June 10, 1902.

702,325.—APPARATUS FOR THE MANUFACTURE OF NITRO-GLYCERIN. Frederic L. Nathan, James M. Thomson and William Rintoul, Abbey, England. Filed March 7, 1902. Issued June 10, 1902.

702,369.—BLACK SULFUR DYE AND PROCESS OF MAKING SAME. Ivan Levinstein and Carl Mensching, Manchester, England. Filed Oct. 5. Issued June 10, 1902.

702,445.—PROCESS OF MAKING MORDANT COLORS. Martin Lange and Tadeusz Emliswicq, Amsterdam, Netherlands. Filed Dec. 11, 1900. Issued June 17, 1902.

702,532.—NON-REFILLABLE BOTTLE. Francois J. Braconnier, St. Germain, France. Filed Jan. 24, 1902. Issued June 17, 1902.

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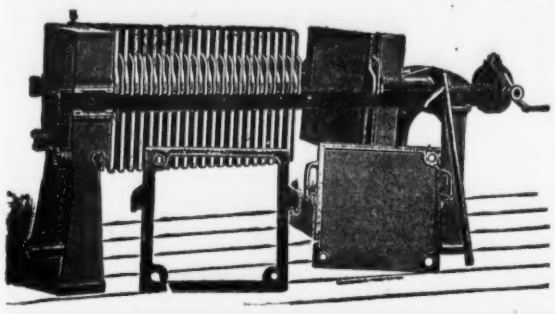
The advertisements which appear in this department are those of Manufacturers, and they all will send catalogue and full information upon application.

It is requested that all inquirers mention the fact that the name was taken from the MACHINERY DEPARTMENT of this publication.

If any of our readers are contemplating the purchase of machinery we will be pleased to place them in direct communication with the manufacturers.



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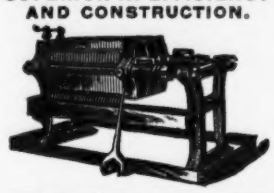

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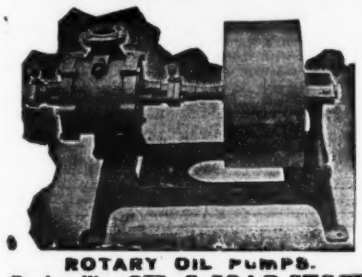

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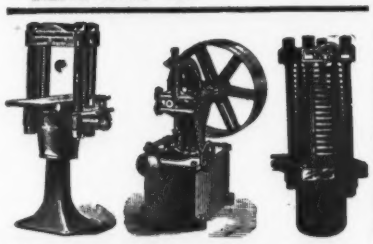

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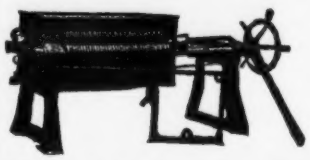

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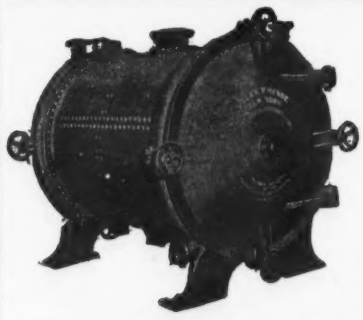

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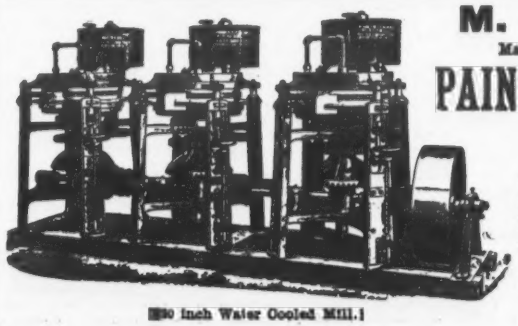

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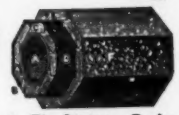

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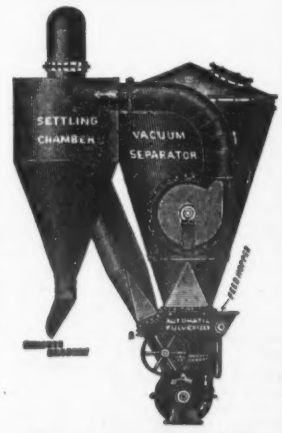

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(Special Correspondence to the Reporter.)

Census Report on Chemical Industry.

Washington, July 3, 1902.

The Census Bureau has completed what is believed to be the most elaborate and comprehensive report to be compiled in connection with the Twelfth Census. It covers from a statistical and technical standpoint the production of chemicals and allied products in the United States during 1900, and has been prepared by Prof. Charles E. Munroe, Ph. D., professor of chemistry, Columbian University, Washington, D. C., and by T. M. Chatard, Ph. D., his associate, acting as expert special agents of the division of manufactures. In transmitting this valuable report to the Director of the Census, Chief Statistician North in his official letter says that "nothing approaching it in any particular has ever before been presented at any census of the United States." Through the courtesy of Mr. North, the Reporter's correspondent is enabled to present the following abstract of the report:—

The compilers of this report have made certain changes in its form as compared with the report covering similar ground in 1890. Pharmaceutical preparations, which were included as chemicals in the census of 1890, have been excluded from the present report, while bone, ivory and lampblack, separately reported in previous census, are here included. Still the data for so many of the industries included in the classification are comparable that a correct idea of the growth of the combined industries as a whole, during the past decade, may be obtained.

The total number of active establishments included in this inquiry, as set forth in this report, is 1,827. Thirty-six establishments were reported as idle, making the total number of establishments 1,863. The report on "chemical and allied products" for 1890 covered 1,626 establishments, including those making pharmaceutical preparations as the principal product, but the latter are not considered in the present report. The Census Office classifies an establishment according to the nature of its principal product, this being determined by its value as compared with that of any other product which may be made therein. The special schedules for the various industries call for the main products of the industry with sufficient detail, while subordinate products are, in most cases, brought under the caption "all other products." Hence, chemical products made by works belonging to other categories cannot, in most cases, be ascertained from the returns and do not appear in this report except in a few specified instances. The amount so lost to this inquiry is, however, not so large as to materially affect these returns, and as the value of such products is included in the figures of the other categories, the final total value of all manufactures is not affected. Moreover, establishments whose products during the census year were valued at less than $500 are not included in the general tabulations, but are taken into consideration in this special report.

Owing to the hearty co-operation of most of the leading chemical works it is believed that the figures here presented are as nearly correct as the difficulties attending the collection of the information have permitted. The products were classified under 19 groups as follows: Group I., Acids; II., Sodas; III., Potashes; IV., Alums; V., Coal-Tar Products; VI., Cyanides; VII., Wood Distillation; VIII., Fertilizers; IX., Wood Distillation; VIII., Chemicals produced by aid of Electricity; XI., Dyestuffs; XII., Tanning Materials; XIII., Paints, Pigments and Varnishes; XIV., Explosives; XV., Plastics; XVI., Essential Oils; XVII., Compressed and Liquefied Gases; XVIII., Fine Chemicals, and XIX., General Chemicals. In the course of the work it was found necessary to form a subgroup, XIX. A, to classify certain establishments whose main products were not originally included in "chemicals." A final group named "miscellaneous" includes a number of products not chemical but made by works belonging to the category of "chemical industries." By bringing such products together their nature, quantity, and value are given and the figures may be used to supplement the returns elsewhere given for such substances so far as they may be separately reported.

Massing together all the establishments exclusively devoted to the production of chemicals and allied products and omitting those in which chemicals are an unimportant by-product, we have 1,740 establishments employing a capital of $238,529,641, giving work to 46,766 wage-earners receiving $21,799,251 in wages, consuming materials to the value of $124,043,837 and turning out products valued at $202,582,396. Adding in these articles produced as by-products, we have a reclassified total of $221,217,217, divided as follows: Chemicals, $78,414,840; dyestuffs, $7,767,226; essential oils, $859,401; explosives, $16,950,876; fertilizers, $45,911,382, and paints and varnishes, $71,313,392. In 1890 the total value of the products of the industry was $163,547,685, and an examination of the details given further on in this report shows that while the industries have greatly advanced in quantity of product, the value per unit of output has much decreased, a tendency of much importance to those industries which use these products as materials for their own operations.

In view of the enormous importance of the chemical industries of Germany, some comparison is made between the methods persued by German manufacturers as compared with those of the United States. The German chemical manufacturer is far in advance of those of all nations in recognizing the value of specialized chemical skill in the conduct of the works and in employing trained chemists in laboratory investigations. Thus McMurtrie points out that the Fabriken der Action Geselischaft Farbewerke Meister Lucius and Bruning in Hochst, who were in 1890 making between 1,700 and 1,800 different colors, numbered among their 3,000 employees, 70 chemists and 12 engineers. Green states that in 1900 the six largest coal-tar color firms in Germany employed about 500 chemists and 350 engineers and technical men, while Sir Henry Roscoe states that at the German works which he had visited, highly trained chemists were employed in original researches with a view to new discoveries. "One employee, who received £1,000 a year, worked for several years without producing any results; but eventually he made a discovery which repaid the firm ten times over, and placed an entirely new branch of manufacture in their hands."

Owing to the extended discussions going on in England and America relative to the tremendous growth of the chemical industries of Germany during the past twenty years, in which many have attributed much of this growth to the extensive employment of doctors of philosophy in chemistry and other university-bred chemists in the German technical works, a census has been taken of the establishments in the United States which are the subject of this report, with the following result:—

CHEMISTS EMPLOYED IN THE ESTABLISHMENTS TREATED OF IN THIS REPORT.

Group number.	Group name.	Number of Chemists.
I.	Acids	28
II.	Sodas	0
III.	Potashes	..
IV.	Alums	11
V.	Coal-tar products	7
VI.	Cyanides	8
VII.	Wood distillation	3
VIII.	Fertilizers	10
IX.	Bleaching materials	4
X.	Electro-chemicals	0
XI.	Dyestuffs	13
XII.	Tanning materials	7
XIII.	Paints and varnishes	53
XIV.	Explosives	52
XV.	Plastics	5
XVI.	Essential oils	2
XVII.	Liquefied gases	9
XVIII.	Fine chemicals	25
XIX.	General chemicals	41
	Total	276

When, in German works, the results of the investigations of the expert chemists indicate commercial possibilities, practical working tests follow, and, in the end, one more patent is added to those which hamper the development of chemical industry in countries, which, like the United States, give the foreigner the monopoly of a patent without requiring that the protected article shall be made where the patent is issued. The effect is that since it is often more profitable to make the higher grade chemicals abroad than in the United States, foreign labor and capital are protected to the injury of the labor and capital of this country. Hence, while the manufacture of acids, alkalies, fertilizers, and other heavy chemicals has greatly increased in the United States, this is mainly because of transportation costs. The tariff on alkalies has certainly added much in the development of this branch because it has been to the interest of the foreign patentees to establish alkali works here either by their own capital or by granting license to others. When, as in the case of dyestuffs and other high-grade chemicals, the transportation cost is a minor consideration, the tariff has little effect in inducing the domestic manufacture of a foreign article protected by a local patent. So long as the demand for his article insures a sufficient price, the foreign patentee can make it abroad and ship it here, paying whatever duty may be demanded; by simply refusing to grant a license for manufacture here, he is secured from all competition. Other countries may have refused to grant him a patent, which may even have become void in the original country, and the article be made by others; yet under our laws, he, and he alone, may vend the article here. The English, who are suffering from a similar condition of their patent laws, are bestirring themselves to have the situation ameliorated, and a special committee of the Society of Chemical Industry has lately made a report upon this subject.

Artificial alizarine was invented in Germany, but no patent was granted there. English patents were, however, granted, with the result that the patentees, having the monopoly of the English market anyhow, simply made it in Germany, as being cheaper so to do, and built up an enormous trade which was the foundation of Germany's present supremacy in the manufacture of coal-tar dyestuffs. Again, the production of artificial indigo is destroying the natural indigo industry of India and producing much distress there. England, which is thus a heavy loser, can do nothing to offset this loss, because the patent monopoly granted to the foreigner enables him to supply the English market on his own terms.

Every country, save England and the United States, has a provision in its patent laws that a patent can be revoked if not worked in the country granting the patent. Moreover, the French patent law has, in addition, the following provision, article 32, section 3, "The patent shall be revoked if the patentee has introduced into France articles of manufacture made abroad and similar to those which are protected by the patent." In this way France provides that, in giving to any one the protection of her patent laws, her domestic industry shall be fostered, and not, as in England and the United States, often injured and sometimes destroyed. Instances have occurred in this country where chemical substances once made here are no longer produced, because the foreign manufacturer, protected by his American patent, has been able to make the domestic manufacture unprofitable.

GROUP I.—ACIDS.

Sulphuric Acid. The manufacture of sulphuric acid has practically doubled during the past decade, the increase of product resulting more from the expansion of works than from an increase in their number. The following figures give the comparison between the output of the census year of 1900 and that for 1890, the figures for quantity and value of 50 degree acid made and consumed in the works in the production of fertilizers and other products.

1900.—Establishments, 125; 50 degree acid, 1,960,878,903 pounds, valued at $7,965,832, or $8.35 per ton; 60 degree acid, 34,023,131 pounds, valued at $246,284, or $14.47 per ton; 66 degree acid, 754,558,455 pounds, valued at $6,065,069, or $6 per ton; total, 2,695,460,489 pounds, valued at $14,247,185.

1890.—Establishments, 105; 50 degree acid, 1,009,863,407 pounds, valued at $4,307,067, or $8.53 per ton; 60 degree acid, 20,379,908 pounds, valued at $122,940, or $12.06 per ton; 66 degree acid, 354,533,657 pounds, valued at $3,249,466, or $18.33 per ton; total, 1,384,766, 962 pounds, valued at $7,679,473.

In addition to the acid made and consumed in the manufacture of fertilizers, there is given in the above totals the quantity and value of the acids consumed at works in 1900 for making mixed acids, for explosives, and for other purposes. The acids used for fertilizers were really 50 degree, or chamber acids. The rest of the acid included for 1900 was of various strengths, but for purposes of comparisons, these have been reduced to 50 degree.

Of the 127 sulphuric acid works reporting in 1900, 31 burned brimstone only, 79 burned pyrites only, while 17 reported that they used both brimstone and pyrites. Seven brimstone-burning plants made 66 degree acid, burning 18,042,072 pounds of brimstone and producing 51,204,775 pounds of 66 degree acid, or an average of 279 parts of 66 degree acid (equivalent to 419 parts of 50 degree acid) to 100 brimstone, the figures for each plant running from 308 to 260 parts of acid. Thirteen brimstone plants, making 50 degree acid only, used 35,955,680 pounds of brimstone and produced 140,534,027 pounds of 50 degree acid, an average of 391 parts of acid to 100 parts of brimstone, the figures running from 446 to 321 parts of acid for 100 parts of brimstone. Two works reporting, respectively, a yield of 321 and 334 parts, stated that they were using a very low grade of brimstone, which was obtained under advantageous conditions. Taking the 20 works together and the whole product as 50 degree acid, it is found that the grand average is 402 parts of acid for each 100 parts of brimstone.

Nine pyrites plants, making 66 degree acid only, consumed 248,026,399 pounds of pyrites and produced 311,924,674 pounds of 66 degree acid, an average of 133.5 parts of acid (equivalent to 200.7 parts of 50 degree acid), for 100 parts pyrites. Thirty pyrites plants, making 50 degree acid only, consumed 425,050,296 pounds of pyrites and produced 889,222,560 pounds of 50 degree acid, an average of 209 acid to 100 pyrites, the figures running from 234 to 160 parts. The grand average for the 39 works is 206 acid to 100 pyrites.

The figure 160 is given by 3 works burning low grade domestic pyrites, while the highest figure, 234 parts acid, is furnished by a new model plant burning pyrites with an average content of 50.05 per cent. of sulphur and using 1.26 parts of nitrate of soda to every 100 parts of pyrites. Other works give, per 100 pyrites, 224 acid, 1.66 niter; 213.4 acid, 2.13 niter, while a large combination reports that it allows 2.5 parts of niter and expects a yield of 225 parts of 50 degree acid. The brimstone works show approximately a consumption of 4.29 parts of niter per 100 pyrites.

In addition to sulphuric acid, reports have been received regarding the production of the acids enumerated in the following table:—

Kind.	Number of establishments.	Quantity. Pounds.	Value.
Nitric	34	30,961,501	$1,454,909
Mixed	9	42,368,819	1,111,258
Muriatic	31	116,848,001	1,020,574
Boric	3	2,384,935	198,212
Acetic	12	26,660,565	426,892
Lactic and citric	3	3,886,362	335,297
Tartaric	4	2,677,004	781,603
Tannic	5	282,515	135,662
Gallic	3	141,291	20,275

It is to be understood that the quantities and values given in this table represent only the acids sold as such, or produced for sale in the establishments, for the actual production, in many cases, is much greater than that given above. Thus the first item on the list, nitric acid, is used in the making of the "mixed acids," which is the second item on the list. This mixed acid is not only manufactured in the acid factories and sold to explosive works, to manufacturers of pyroxylin for use in the making of plastics and varnishes, and to other manufacturers, but many of the larger works now make the nitric acid which they consume in this manner. There is thus made and consumed more nitric acid than is sold as such, the production as reported amounting to 62,473,295 pounds, which is probably less than the total amount actually made for use and sale. Theoretically, 74.13 parts of nitric acid monohydrate can be made from 100 parts of pure sodium nitrate, but in practice, only 95 per cent. of this is condensed, while 5 per cent. passes to the towers. From this then, there would be required 43,841 tons of nitrate of soda and 47,384 tons of sulphuric acid to produce the above-given quantity of nitric acid, and there would result as a by-product 52,609 tons of niter cake. It is to be borne in mind that nitric acids of various degrees of strength, ranging from single aquafortis of specific gravity 1.22, and double aquafortis of specific gravity 1.36, to the strongest nitric of 1.50 specific gravity, and red fuming of 1.60 specific gravity are to be found in the market, and that no attempt has been made to separate them as to quantity, or to reduce them to a common basis, so that the data must be regarded as of average value.

GROUP II.—SODA PRODUCTS.

The great increase in this branch noted in the Census report for 1890 has continued during the past decade. The number of establishments making soda products as the main part or as a subsidiary of their business has increased from 32 to 50, while the products have increased as shown in the following table. To these figures for 1900 must be added "other soda products," not otherwise specified, produced by these works and valued at $143,432, and also 11,756,000 pounds of borax, valued at $541,160, made by seven borax works. These items were not included in the report for 1890 and are therefore not taken into the comparison. Where the figures of this report show an increase over the figures for the same items in other tables of this census, the difference is due to the inclusion here of all products made by works belonging to other groups, for example, the caustic soda produced by electrolysis, which is included in the products of that group and not separately reported.

The following figures show the total production of soda products for the census years 1900 and 1890:—

1900.—Soda ash, 781,306,000 pounds, valued at $4,859,656; sal soda, 126,498,000 pounds, valued at $875,243; bicarbonate of soda, 1o..712,000 pounds, valued at $1,332,765; caustic soda, 233,566,000 pounds, valued at $3,170,280; total, 1,279,082,000 pounds, valued at $10,234,944.

1890.—Soda ash, 94,801,200 pounds, valued at $1,179,720; sal soda, 144,641,705 pounds, valued at $1,581,766; bicarbonate of soda, 60,678,750 pounds valued at $2,009,800; caustic soda, 32,002,720 pounds, valued at $661,144; total, 333,124,375 pounds, valued at $5,432,400.

The decrease in the production of sal soda is noteworthy and is due to the increasing use of soap powders and other specially prepared washing materials. Although the production has almost quadrupled during the past decade, the value per unit has fallen greatly, the percentage of decrease being as follows: Soda ash, 50 per cent.; sal soda, 29.35 per cent.; bicarbonate of soda, 70.69 per cent.; caustic soda, 32.50 per cent.

Seven establishments manufactured borax during the census year with a combined production of 11,766,000 pounds, valued at $541,160. No figures for borax were given at the census of 1890 so that no comparison can be instituted. The present number of borax works is undoubtedly smaller than it was several years ago because it has been found more economical to ship the material to central points for treatment than to work it up locally as was formerly done. A small item under the head of "other soda products," valued at $143,432, is included in the returns of 1900, but as they are not specified by the manufacturers, no proper distribution is possible. The state producing the largest quantity of soda products in 1900 was New York, with a value of $4,699,481. Michigan stood second with $2,814,969; Pennsylvania third with $861,195, and California fourth with $647,175.

This great increase in domestic production has resulted in a corresponding diminution of importations. The Treasury report of importations for 1890 gives soda ash and sal soda, together as 322,733,952 pounds, valued at $3,493,288; caustic soda, 80,125,732 pounds, valued at $1,470,335, and bicarbonate of soda, 917,034, valued at $16,319; while the same report for 1900 gives soda ash, 78,571,870 pounds, valued at $648,450; sal soda, 6,624,194 pounds, valued at $31,072, and caustic soda, 11,429,989 pounds, valued at $177,857; but does not report bicarbonate separately.

GROUP III.—POTASHES.

This classification was intended to include not only potash, which is an impure potassium carbonate, but also pearlash, which is the refined potassium carbonate, yet, though returns for the census year 1900 were received from 67 establishments, producing 3,864,766 pounds of potash, valued at $178,180, no pearl ash was reported manufactured. Of these 67 establishments, 12 produced products valued at less than $500.

The burning of wood and the lixiviation of the ash to extract the potash, though of minor importance so far as the monetary value of the product is concerned, is one of the oldest of the purely chemical industries. In 1850 there were no less than 569 establishments in this industry having a product of $1,401,533. In 1890, the establishments had decreased to 75 with a product valued at but $197,507, and, as above noted, there was a further decrease in 1900. The establishments in 1900 were distributed as follows: Michigan, 44; Ohio, 15; Indiana, 3, and Maine, Wisconsin and Illinois, a total of 5.

There were reported as having been used in this manufacture 812,399 bushels of wood ashes, valued at $40,191. The yield of potash per bushel of ashes, as reported, varied from 2.4 to 7 pounds. In the product given above there is included potash packed in cans, amounting to 820,000 pounds, having a value of $53,249. Excluding this, as being in the nature of a duplication, it appears that the total production of potash for 1900 was 3,044,766 pounds, and that therefore the average yield of potash per bushel of wood ashes, as shown by the entire returns, was 3.75 pounds. Pelouze and Fremy give the yield by weight as 10 per cent., and this appears in other textbooks; but all returns for ashes received at the census of 1900 were given in bushels.

GROUP IV.—ALUMS.

During the census year, 1900, there were 13 establishments engaged in the manufacture of alums, either as a principal or subordinate product, as compared with 10 in 1890. The production in 1900 was 197,467,471 pounds, valued at $2,446,576, as compared with 93,998,008 pounds, valued at $1,616,710, in 1890, an increase of 139 per cent. in quantity and 100 per cent. in value.

The output of 1900 was divided among the following kinds of alum: Ammonia alum, 6,580,373 pounds, valued at $102,308; potash alum, 14,200,393 pounds, valued at $215,004; burnt alum, 16,028,464 pounds, valued at $403,100; concentrated alum, 103,016,815 pounds, valued at $1,062,547; alum cake, 4,048,655 pounds, valued at $34,047; other alums, 35,592,771 pounds, valued at $629,570. The legend "other alums" is as reported on the schedules and no doubt under it are included some of the kinds named in the list above, but it has not been possible to separate them. However, there are in the classification, 1,526,000 pounds of aluminum hydroxide (hydrate of alumnia), valued at $31,500. There are included under "burnt alum" 9,399,550 pounds of material, with a value of $228,500, returned as "soda alum" from 4 establishments. In addition, there were reported 3,928,160 pounds of ammonia alum, valued at $58,922, and 1,149,666 pounds of aluminum sulphate, valued at $10,922, as having been produced and consumed in the manufacture of other products.

It should be said that of the 13 establishments reported above, but two of them were reported as producing alum only, the others being engaged in the manufacture of many other chemical substances. Taking the ratio of value which the alum bears to the total value of products for these last mentioned establishments as a guide, it appears that these 13 establishments employed 802 wage-earners and a capital of $3,888,446 in the production of alum, and that there were consumed 34,000 tons of bauxite,

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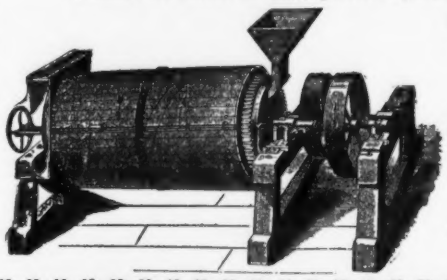

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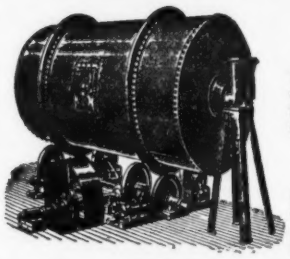

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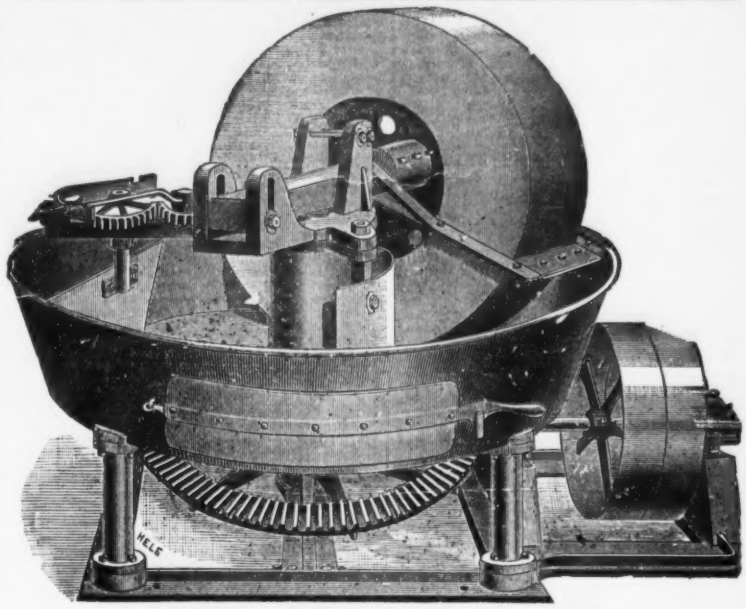

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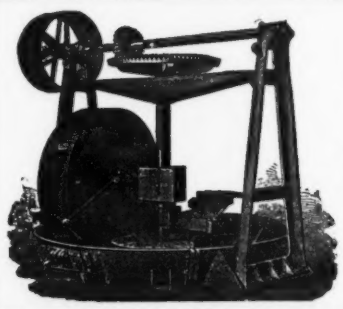

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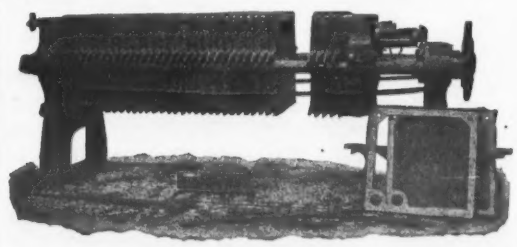

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The geographical distribution of the 13 establishments engaged in this industry was as follows: Pennsylvania, 6; Massachusetts, 3, and Illinois, New York and Michigan, a total of 4.

GROUP V.—TAR PRODUCTS.

Notwithstanding that as early as 1815 Accum had devised a process for obtaining a volatile oil from coal tar for use as a substitute for spirits of turpentine; that in 1845, A. W. Hoffman had discovered that this body contained benzine; that in 1856 a great impetus was given to tar distilling by the discovery of anilin colors by Perkins, since the benzol, which is the raw material for their manufacture, was exclusively derived from coal tar, and that from 1806, when coal gas was introduced for lighting by David Melville, at Newport, R. I., coal tar had been a by-product of the industry in this country; yet it was not until 1880 that any mention was made in the United States Census Reports of these bodies.

At the census of 1900 there were reported 14 establishments devoted to the manufacture of coal tar products, which amounted in value to $1,322,094, and 8 establishments in which its manufacture was of secondary importance with a value of $99,626, the total value being $1,421,720. These establishments were distributed as follows: Missouri, 3; Pennsylvania, 6; New York, 3; Louisiana, Tennessee, Ohio, California, Minnesota, Massachusetts and New Jersey, a total of 10. There were 466 wage-earners employed in the industry and the capital was $1,448,662. In 1890 the total product of the industry was valued at $687,591.

Of the products reported in 1900, chemicals having a value of $205,047 were obtained from further action of the distillate of the coal tar. In addition, these factories produced tarred felt and tar paper (in which part of the material from the coal tar was consumed), having a value of 442,529. Coal tar, as its name implies, is obtained from coal, and it is produced by the destructive distillation of coal out of contact with the air, the other products being gas, coke and ammoiacal liquor. From the beginning of the nineteenth century the chief commercial source of the coal tar was found in the manufacture of coal gas for illuminating purposes, but to-day it is also obtained from the by-product coke ovens, while gas producers, blast furnaces and water-gas plants furnish tars which now find commercial uses, though they differ in composition from coal tar. In the special report on coke for the census of 1900, it is reported that the production of tar from the by-product coke ovens for 1899 amounted to 104,687,330 pounds, or 52,344 tons. Although the returns for gas for 1900 are given in the special report on gas for the census of 1900, no separate returns are therein presented for the by-product of tar. This may, however, be estimated as follows: In that report it is stated that the total production of gas was 67,093,553,471 cubic feet, and that over 75 per cent. of the gas manufactured during the census year was water gas. Putting the coal gas at 20 per cent., we have 13,418,710,694 cubic feet of coal gas.

The average yield of gas per ton of gas coal is 10,000 cubic feet, and dividing the volume of gas by this there results 1,341,871 tons of coal as having been used for making coal gas. The wield of tar per ton of coal is about 5 per cent. by weight, which gives from the above figure 67,094 tons of tar. The total quantity of coal tar from the by-product coke ovens and the coal-gas industry in 1900 was, then, approximately 119,438 tons. The quantity of "water-gas tar" may also be estimated from the quantity of oil consumed, which is given in the special report on gas as 194,857,296 gallons. According to Douglas, about 25 per cent. of the oil is recovered as tar, which gives for the oil recorded above 48,714,324 gallons of tar. As, according to R. H. Elliott, "water-gas tar" has a specific gravity of 1, 1, a gallon will weigh 9.15 pounds, and therefore the total weight of "water-gas tar" obtained in the United States for 1900 as derived from the data given above is 222,868 tons. No tar is reported from any other source, though it is known that abroad the blast furnaces and gas producers are utilized as sources of this material. The total computed production of coal tar and water-gas tar for the United States for the census year 1900 is therefore 342,306 tons. It is worth noting that though the first by-product coke oven in the United States was erected in 1892, yet the industry has grown so fast that the yield of coal tar from this source closely approaches that from coal gas making.

GROUP VI.—CYANIDES.

In this classification are included potassium ferrocyanide, potassium ferricyanide, potassium and ammonium sulphocyanates (known commercially as sulphocyanides), and potassium, sodium and other cyanides. No separate account was taken of the cyanides at any census previous to 1900. At the census of 1900 returns were made only for potassium ferrocyanide and for potassium cyanide. Twelve establishments were reported in which the cyanides were the principal products, the value being $1,466,061, and 6 establishments in which they formed secondary products, the value being $12,844. These 18 establishments employed $1,322,719 of capital and 391 wage-earners and produced $1,595,505 of product. They were distributed as follows: New Jersey, 6; Pennsylvania, 4; Ohio, 3; Maryland, Massachusetts and Missouri a total of 5.

Of the products reported, 6,165,407 pounds, having a value of $994,014, were potassium ferrocyanide, and 2,317,280 pounds, having a value of $601,491, were the so-called potassium cyanide. There were consumed in this manufacture 9,315,089 pounds of potassium carbonate, having a value of $279,602; 3,456 tons of hoofs and of horn waste, having a value of $87,502; 19,417 tons of scrap leather, having a value of $150,213; 1,200 tons of spent iron oxide from the gas works, having a value of $3,000· 300,000 pounds of sodium, having a value of $93,183; 2,400 bushels of lime, having a value of $480; $9,520 worth of scrap iron, and 2,401,180 pounds of potassium ferrocyanide.

Potassium ferrocyanide (ferrocyanide of potassium; yellow prussiate of potash; blood-lye salt) was discovered by Macquer in 1752, through acting upon prussian carbonate in cast-iron vessels and adding to the fused mass of mixture of nitrogenous organic matter, such as horns, hair, blood, wool waste and leather scraps, with from 6 to 8 per cent. of iron turnings or borings; until the mixture added equals about 1¼ parts of the potash. The fused mass, when cooled, contains, among other substances, potassium cyanide, carbonate and sulphide, iron sulphide, metallic iron and separated carbon. This mass is broken up and digested with water at 85 degs. C. for several hours, during which reactions take place by which the potassium ferrocyanide is formed. The solution is clarified and the potassium ferrocyandide purified by crystallation, when it appears in fine, large, yellow crystals.

Potassium ferrocyanide is also prepared from the spent exide or iron from gas works' purifiers, thereby utilizing the nitrogen compounds that have been taken up or formed during the process of purification. In this operation the oxide is lixiviated with warm water to remove the ammonium sulphocyanate and other ammonium compounds, and the residue is mixed with quicklime and heated by steam in closed vessels to 100 degs. C., through which calcium ferrocyanide is formed, and separated by lixiviation. By treating this with potassium chloride, the difficulty soluble calcium potassium ferrocyanide is formed, and by decomposing this with potassium carbonate the potassium ferrocyanide results.

GROUP VII.—WOOD DISTILLATION.

Wood distillation as now classified for census purposes deals solely with that treatment of wood by which wood alcohol, acetic acid, acetate of lime, pyroligneous acid, and charcoal, or any of these, are produced. This interpretation was given to it in 1880, the first census at which separate returns were set forth for the industry. The manufacture proceeds in two stages: First, the production of crude wool alcohol or wood spirits and crude acetate of lime; second, the refining of the alcohol, and the refining of the acetate of lime, or the production therefrom of acetic acid or acetone. The refining processes are usually carried out at other works than those in which the crude materials are produced, but while in the census reports the alcohol refineries remain identified and classified with the wood distillation works, the factories where the acetate of lime is treated are classified with "chemicals, acids." With this preface it can be stated that 99 establishments were reported as producing some of the crude substances enumerated above during the census year 1900. Of these, 84 were regular wood-distilling establishments and produced of crude alcohol, 4,191,379 gallons, having a value of $1,690,061; of acetate of lime, 81,702,000 pounds, having a value of $926,358; and of charcoal, 14,428,182 bushels, having a value of $612,009.

These works employed $4,858,824 of capital, and 1,268 wage-earners. There were 9 establishments reporting the production of the crude material and the refining of the alcohol in the same factory; and these establishments produced of refined alcohol, 637,856 gallons, having a value of $370,513; of acetate of lime, 5,124,000 pounds, having a value of $54,928; and of charcoal, 2,726,120 bushels, having a value of $114,663. They employed $760,156 of capital and 254 wage-earners. Besides these there were 9 establishments engaged in refining wood alcohol only, producing 2,400,284 gallons of refined alcohol, having a value of $1,926,385, and employing $1,098,719 of capital, and 52 wage-earners. Finally, there were six other establishments engaged in the production of pyroligneous acid or pyrolignite of iron as incidental to other manufacturing processes, the total quantity of pyroligeneous acid reported from all sources being 182,446 gallons, valued at $29,440, and of sundries, such as wood creosote, wood oil, ashes, tar, and the like, amounting in value to $71,452.

At the first census of this industry in 1880 only crude materials were reported. At the census of 1890 refined wood alcohol was reported for the first time, and it was then stated that the total output of crude alcohol was found by adding to that produced at the "acid factories" that which was produced and refined in the same establishment. Proceeding in this way for the 9 establishments reported above for 1900 as producing the crude alcohol and refining it in the same establishment, and converting the refined 97 per cent. alcohol into crude 82 per cent. alcohol at a value of 42 cents per gallon, a total is obtained for these establishments of 754,584 gallons of crude alcohol having a value of $316,925. By taking, in these instances, the per cent. of the total value for all products added in the refining of the alcohol, the proportion of capital and labor devoted to the production of the crude material is found to be, for these 9 establishments, $641,052 of capital and 219 wage-earners. There were, therefore, 93 factories producing crude alcohol, in which $5,499,876 of capital and 1,487 wage-earners were employed. The output thus ascertained as compared with the returns for the census of 1890 is as follows:

1900.—Establishments, 93; wood alcohol produced, 4,945,963 gallons, valued at $1,976,986; acetate of lime, 86,826,000 pounds, valued at $981,286; charcoal, 17,154,302 bushels, valued at $126,672.

1890.—Establishments, 53; wood alcohol, 1,116,075 gallons, valued at $688,764; acetate of lime, 26,778,430 pounds, valued at $315,430; charcoal, not reported.

The establishments reported in 1900 were distributed as follows: Pennsylvania, 58; New York, 24; Michigan, 5; North Carolina, 3; New Jersey, Indiana and Massachusetts, 1 each.

GROUP VIII.—FERTILIZERS.

The term "fertilizer," as used in this report, includes all manufactured products which are intended to promote the growth of plants and which can be, and customarily are, so used without needing any further factory treatment. Under this definition raw phosphate rock, even if finely ground, can hardly be included, nor can crude cottonseed, ordinary tankage, nor unground bone. All of these have fertilizing properties, but require further treatment, usually chemical, if the full effect is to be economically obtained. The term "fertilizer works" should, strictly speaking, be confined to establishments producing "finished fertilizers," such as superphosphate, with or without ammoniates; "complete fertilizers," by which is meant a mixture of superphosphate with both potash and ammoniates; and "all other fertilizers," including bone meal and similar substances. But under the principle governing the classification of industries at the census of 1900 there can be included in fertilizer works all factories of which the main product, though not a finished fertilizer, was, nevertheless, a fertilizer material—say, tankage—in a condition of advanced manufacture, such products being included in "all other fertilizers."

The total number thus classified as fertilizer works, and forming Class A, is 422. In addition there are 18 small establishments, each of which reported a value, for all products, of less than $500, and hence are not included in the regular census tabulations. As the total fertilizer product of the 18 establishments amounted to but 46 tons of complete fertilizer, valued at $1,047, and 213 tons of "all other fertilizers," valued at $3,489, it will be seen that the omission to tabulate establishments under $500 is of small consequence.

Under Class B are included 10 establishments whose main product places them in some one of the 19 groups of "chemical industries," but which made more or less fertilizers as a subordinate, though sometimes very important, part of the product. The total fertilizer product of this class amounted to superphosphate, 1,810 tons, value, $20,417; complete fertilizer, 17,707 tons, value, $250,077; and "all other fertilizers," 7,983 tons, value, $98,510.

Class C includes 28 works, none of which belongs to "chemical industries," yet at which were made a certain amount of fertilizers. The importance of taking this class into consideration, if a full presentation of the industry is desired, is evident, since the total product of this class was superphosphate, 12,000 tons, value, $100,000; ammoniated superphosphate, 750 tons, value, $13,500; complete fertilizers, 24,391 tons, value, $521,825; and "all other fertilizers," 27,409 tons, value, $443,147.

Class D includes such by-products of "slaughtering and meat packing," "garbage reduction," "glue," and similar industries as were reported as "fertilizers." So far as known, such materials are bones, bone tankage, ammoniates, and the like, utilized in the preparation of ammoniated and complete fertilizers. While included here for the sake of completeness, it must be remembered that the amounts and values of these products, as well as those of Class C, are elsewhere reported in the census tables of their respective industries, and their presence here is a not unnoticed duplication. Of this class, 10 "garbage reduction" works produced such materials aggregating 17,809 tons, value, $256,322; while the report for "slaughtering and meat packing" gives "fertilizers," 160,962 tons, value, $3,326,119; and "glue" gives 15,542 tons, value, $331,268; a total of 204,713 tons, and a value of $3,913,709.

Included in "all other fertilizers" is fish scrap, the residue after the oil is pressed out of the fish, amounting to 27,635 tons, of a reported value of $448,602, in addition to which certain establishments made 1,942 tons which were consumed in works in making fertilizers.

Aggregating the totals of the establishments in Class A, B and C, the only class which can properly be denominated "fertilizer works," we have a grand total of 476 establishments with a product of 2,887,004 tons, valued at $41,997,673, as compared with 392 establishments with a product of 1,898,806 tons, valued at $35,819,841 in 1890.

GROUP IX.—BLEACHINB MATERIALS.

Although bleaching materials of various kinds have been long in use and bleaching by chlorine or hypochlorite has been in vogue since the latter part of the eighteenth century, no separate returns have been secured for this industry at any previous census. Chlorine production has practically been, until recently, incidental to the manufacture of soda by the Le Blanc process, and as this process has not secured a foothold in the United States, the production of chlorine bleaches has heretofore undoubtedly been insignificant in quantity and value. With the introduction of electricity as an agent in effecting chemical transformation, common salt and other chlorides are being electrolyzed on a commercial scale with the result that the production of chlorine and hypochlorites is assuming importance. The chlorine thus produced is converted into bleaching powder by means of lime, but other hypochlorites, and notably sodium hypochlorite, are made from imported bleaching powder. In addition there are produced and used in bleaching, disinfection, or as a preservative, hydrogen dioxide, sodium dioxide, sulphurous acid, sodium, calcium, and potassium bisulphites, and many special compositions.

In considering this industry in its entirety there must be discussed, not only these bodies specifically reported as bleaching materials produced by the older process, but also such bleaching agents as have been produced by the aid of electricity, or sent out for use in the compound or liquefied state, and also those which are the subordinate products of establishments whose principal products classify them with other industries. Combining these there were 25 establishments in 7 states, producing 26,794,338 pounds of material having a value of $592,658, and employing a capital of $672,969 and 216 wage-earners. These establishments were distributed as follows: New York, 10; Pennsylvania, 6; New Jer-

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sey, 3; Illinois, 3; Missouri, Michigan and Ohio a total of 4.

Among the principal products were 10,979 tons of hypochlorites of a value of $462,949; 588,335 pounds of hydrogen dioxide of a value of $63,754; 350,585 pounds of sulphur dioxide of a value of $4,826, and 1,461 tons of bisulphites of a value of $34,826. There were consumed in this manufacture 15,000 tons of salt brine, equivalent to 1,574 tons of salt, or, together with the other salt consumed, 9,055 tons of salt of a value of $19,105; 158,561 bushels of lime of a value of $20,532; 168 tons of caustic soda of a value of $7,618; 92,600 pounds of metallic sodium; 93,000 pounds of black oxide manganese of a value of $1,325; 227 tons of muriatic acid of a value of $4,325; 974 tons of soda ash of a value of $23,368; 7 tons of potash of a value of $420; 171 tons of sulphur of a value of $4,000; 74 tons of barium dioxide of a value of $16,540; 74,490 pounds of phosphoric acid of a value of $14,898, and 44 tons of bleaching powder of a value of $1,570.

GROUP X.—CHEMICAL SUBSTANCES PRODUCED BY THE AID OF ELECTRICITY.

In no prior census has any mention been made of this art. As a fact, this industry has practically been developed since the census of 1890 was taken. Nevertheless, it has already grown to such magnitude in these ten years as to effect serious inroads on the older processes, and it will undoubtedly in the future assume a greater importance. Already it is found that sodium and other metals, caustic soda, bleaching powder and other bleaching agents, bromine and potassium bromide, potassium chlorate, litharge, graphite, calcium carbide, carborundum, carbon disulphide, and phosphorus are reported as being produced on a commercial scale, the total value of the output for 1900 being reported as $2,045,535. It is particularly to be noted that the Le Blanc soda process, which has for a century been a standard process for chemical manufacture, is now endangered not only by the Solvay ammonia process, but that the last prop on which it relied for profit has been thrown down by the development of economic methods for the electrolytic production of bleaching powder. It is to be regretted that statistics of the electrical energy efficiency, and other data which are essential to a full understanding of this art are not at present accessible. But it can be stated that, apart from works producing aluminum (which is not included in the chemical industries), there are 14 establishments in the United States belonging to Group X, and that these employ $9,173,060 of capital and 739 wage-earners. These establishments were distributed as follows: New York, 10; Maine, Michigan, Connecticut and New Hampshire, one each.

GROUP XI.—DYESTUFFS.

In previous censuses dyestuffs have been combined with extracts used for tanning purposes, but as they are separated in the Twelfth Census it is not practicable to compare them. Seventy-two establishments were reported in 1900 with an output of 61,209,231 pounds, valued at $5,868,006. The product included the following items:— Natural dyestuffs, 48,245,628 pounds, valued at $3,435,808; artificial dyestuffs, 7,698,435 pounds, valued at $2,280,899; mordants, 734,000 pounds, valued at $85,466; iron liquor, 3,344,568 pounds, val-

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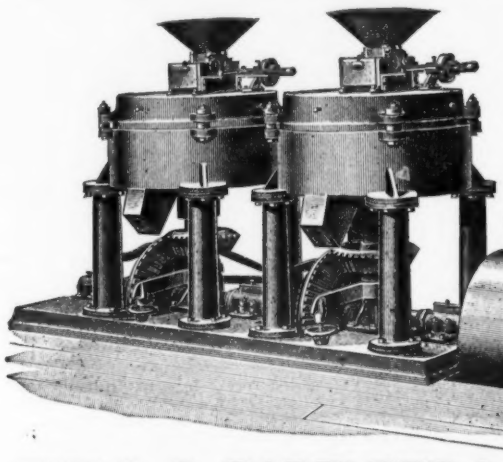

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ued at $32,065; red liquor, 770,040 pounds, valued at $7,340; other products, 4,9.. pounds valued at $26,428. The most important establishments engaged in this industry were located in New York, Massachusetts, Pennsylvania and New Jersey.

In the manufacture of dyestuffs there were consumed 51,955 tons of logwood, of a value of $1,084,746; of fustic, 3,104 tons, of a value of $51,586; of cutch, 798,505 pounds, of a value of $61,697; of indigo, 109,034 pounds, of a value of $125,069; of yellow oak bark, 4,907 tons, of a value of $29,451; of aniiin dyes, 1,734,717 pounds, of a value of $840,229; of alizarine and other coal tar colors 1,417,325 pounds, of a value of $333,317; of logwood extract, 2,364,792 pounds, of a value of $163,408; and of wood for the manufacture of iron liquor, 2,838 cords, of a value of $9,629; besides small amounts of nicwood, quercitron, turemic, quassia, persian berries, myrabolans, gambier, sumac, nutgalls, quillbark and oils, and other materials for assistants and mordants.

GROUP XII.—TANNING MATERIALS.

For the same reasons stated in connection with dyestuffs, it is not practicable to present a comparison of the figures of the census of 1900 for tanning materials with those of 1890.

In this report for the census of 1900 there are included, under "tanning materials," the ground, chipped and other comminuted materials, and the extracts obtained from oak bark and wood, hemlock, sumac and palmetto root, together with the chrome solutions that are employed in tanning. Under this classification, and taking into account establishments not in the chemical classification of the census, but which produce tanning materials in addition to other products, like drugs or leather, 39 establishments were reported, employing $2,107,940 of capital and 1,790 wage-earners, and producing $1,899,220 of product. They were distributed as follows: Virginia, 8; Pennsylvania, 8; New York, 4; West Virginia, 4; New Jersey, 6; Massachusetts, Maryland, Florida, Tennessee, Kentucky, Illinois, Michigan and California a total of 9. There were 23 establishments employing $1,065,665 of capital and 351 wage-earners in the manufacture of tanning materials from the oak. There were used of oak and chestnut oak, 36,897 cords of bark, of a value of $265,557, and 34,871 cords of wood, of a value of $92,252, and there were produced of ground bark, 29,948,237 pounds, having a value of $661,119.

There were 10 establishments employing $586,681 of capital and 156 wage-earners engaged in the manufacture of tanning materials from the hemlock. There were used of hemlock bark, 43,566 cords, having a value of $210,930, and there were produced 35,591,329 pounds of extract, of a value of $572,882, whereas in 1870 (the only previous record at command) 2 establishments were reported employing $85,000 of capital and 37 wage-earners, and having a product valued at $185,300.

There were reported 11 establishments employing $333,748 of capital and 105 wage-earners engaged in the manufacture of tanning materials from sumac. There were used of sumac leaves, 11,538 tons, having a value of $214,353, and there were produced 9,528,800 pounds of ground sumac, valued at $114,660, and 8,102,742 pounds of sumac extract, valued at $215,677.

GROUP XIII.—PAINTS (including varnishes and base, ivory and lampblack).

There were 647 establishments in 1900 engaged in the production of paints, varnishes, etc., including 32 in which such production was a side line. The capital employed was 60,834,921. The number of wage-earners was 13,513 and the value of the products, $71,313,292. In 1890 there were 522 establishments having a capital of $45,318,146, employing 10,588 wage-earners and turning out products valued at $54,233,681.

The entire paint and varnish products sold as such during the census year of 1900 were as follows:—

Kind.	Quantity.	Value.
White lead, pounds	123,070,310	$4,501,078
Oxides of lead, pounds.	62,385,056	2,862,743
Oxide of zinc, pounds	60,225,154	2,212,787
Lampblack, pounds	7,519,345	420,037
Fine colors, pounds	4,080,902	1,028,754
Iron oxides and other colors, pounds	33,772,256	324,902
Dry colors, pounds	169,128,826	4,483,478
Pulp colors, solid moist, pounds	20,060,935	861,531
Paints in oil, in paste, pounds	310,072,689	17,858,693
Paints, ready mixed, gallons	17,380,318	15,139,431
Varnishes—		
Oil and turpentine, gallons	14,286,758	14,337,461
Alcohol, gallons	563,212	943,069
Peroxylin, gallons	204,069	237,012
Liquid dryers, etc., gals.	6,564,370	3,085,254
Putty, pounds	17,287,323	238,427
All other products	.....	2,778,725
Total		71,313,392

As the returns were not given in detail of the materials employed in this industry, the following list of those specified represents all that can be obtained, and while incomplete is nevertheless of much interest: Gums, 36,533,632 pounds, valued at $3,470,695; grain alcohol, 78,309 gallons, valued at $175,907; wood alcohol, 310,059 gallons, valued at $285,510; dry colors, $7,002,913; white lead, 39,659,235 pounds, valued at $1,970,614; whiting, 10,690,441 pounds, valued at $55,157; linseed oil, 16,157,117 gallons, valued at $7,495,196; turpentine, 6,519,408 gallons, valued at $2,965,051; benzine, 10,081,945 gallons, valued at $1,045,488; total value of materials, $24,446,531.

GROUP XIV.—EXPLOSIVES.

This industry, which, as measured by the value of the output, is the fifth in importance among the industries classified under chemical products, has shown a most promising growth during the last decade, as presented by the returns of the census of 1900, for 97 regular establishments in 21 different States were engaged in the production of explosives. These establishments employed $19,465,846 capital and 4,502 wage-earners, and produced 215,590,719 pounds, having a value of $16,950,976. In 1890 there were 69 establishments having capital of $13,539,478, employing 2,353 wage-earners and producing 98,645,912 pounds, valued at $10,993,131. These figures included the production of gunpowder, blast powder, nitroglycerine, dynamite, smokeless powder, guncotton, fulminate of mercury, etc.

GROUP XV.—PLASTICS.

During the census year eight establishments manufactured cellulose plastics and also engaged in the further manufacture of these plastics into articles of various sorts. The value of the plastic produced was $2,099,400. The total value of the plastics and of the finished articles was $3,063,673. There were employed a capital of $7,558,720 and 1,221 wage-earners. No statistics can be given for previous censuses covering this group except for pyroxylin plastics which constitute the principal class. The value of the products of this class in 1900 was $2,864,644 and in 1890 it was $2,575,736. The best known of all the pyroxylin plastics is celluloid, which is used in making a great variety of articles, including collars and cuffs, piano and organ keys, billiard balls, paper cutters, combs, brush backs, handles for canes, umbrellas and cutlery, dies, etc. The general group also covers products of viscose, which is the most recently developed product in the shape of a plastic body made from cellulose, and in addition, substances now produced from gutta percha, gluten and like bodies.

GROUP XVI.—ESSENTIAL OILS.

Though one of the less important, as measured by the value of the product, this is one of the oldest of the chemical industries, and it received recognition as a distinct industry in census statistics as long ago as 1860. It appears, however, that there have been varying views at the several censuses as to what substances should properly be placed under this classification. For the census of 1900, there are included in this report, under this title, all those bodies reported as having been manufactured in the United States during the census year, that are usually included in the textbooks and treatise under the legends "volatile oils" or "essential oils," except vanillin, and oil or spirits of turpentine, which was made the subject of a special census report, while in addition witch hazel is included. In this classification, then, there are, for the year ending June 1, 1900, 100 establishments in 14 States, engaged wholly or chiefly in the production or refining of these oils. Of these, 30 establishments produced a product of less than $500 in value. These 100 establishments employed $622,385 of capital and 201 wage-earners, and the value of their products was $850,133. In addition, there were 3 establishments which produced $9,268 of essential oils as a subordinate product. As pointed out, there is included here the refined natural oils and the crude natural oils, and in addition the artificial oils. These last named are manufactured by 4 establishments, employing $33,720 of capital and 13 wage-earners, and they reported $54,450 in value of products. The vanillin industry, which is classified with "fine chemicals," returned 124,874 ounces of the product, having a value of $113,050. This was manufactured in 4 establishments, and gave employment to 26 wage-earners and $65,689 of capital. The product of refined natural oils for 1900 amounted in value to $370,500. The establishments for the production of the crude natural oils were distributed as follows:

In 1890 there were 67 establishments engaged in the production of essential oils with a capital of $102,223, employing 191 wage-earners, and having an output valued at $255,847. It should be understood that this product relates to crude oils only. The industry in 1900 was chiefly located in Michigan, Virginia, New York, Indiana and Connecticut, and was carried on by a large number of persons in a very small way, usually as an accessory of farming.

GROUP XVII.—COMPRESSED AND LIQUEFYING GASES.

At the census of 1900 returns were made not only for compressed or liquefied ammonia (known technically as anhydrous ammonia), but also for sulphur dioxide, carbon dioxide, nitrogen monoxide (known technically as nitrous oxide), oxygen, and liquid air, the manufacture being carried on during the census year in 30 different establishments regularly devoted to this business. In addition there were 6 establishments reported in which liquefied gases were produced as a subordinate part of the product, the major part of the product being in some instances other than chemicals. Besides, one idle establishment was reported. Taking the returns together, it is found that there were 37 establishments devoted to this manufacture, producing $1,220,297 of products and giving employment to 251 wage-earners and $2,185,535 of capital. These establishments were distributed as follows:

Of these establishments 19, employing 181 wage-earners and $1,650,094 of capital, were engaged in producing liquefied carbon dioxide, and the output for the census year amounted to 12,196,061 pounds, of a value of $708,864. In addition, one establishment using carbon dioxide in manufacture reported having produced and consumed 165,000,000 pounds of this gas during the year; but, though it was compressed, it was not liquefied for use. There was employed in the manufacture of the liquefied carbon dioxide reported above, 7,027 tons of magnesite, 2,011 tons of limestone, 774 tons of coke, and 4,771 tons of sulphuric acid, and among other products there were obtained 3,095,000 pounds of epsom salts, 3,278 tons of calcined magnesite, and 5,000 bushels of lime. About 3,500,000 pounds of the carbon dioxide reported came from fermentation or from effervescent springs.

Ten establishments employing 52 wage-earners and $453,328 in capital were engaged during the census year in producing anhydrous ammonia, and the output for the year amounted to 2,443,729 pounds, having a value of $448,157, and there were consumed in this manufacture 2,148 tons of ammonium sulphate, 4,199,708 pounds of aqua ammonia, and 83,402 bushels of lime.

No figures for 1890 are available for comparative purposes, this classification not having been employed in that census.

GROUP XVIII.—FINE CHEMICALS.

Under this classification are grouped the chemically pure chemicals manufactured for sale, the chemical substances which are made for use in laboratories and in pharmacy, and those in which, like the salts of silver and of gold, the price of the unit of measure is relatively very high. It is to be noted that though this term is used in the market, the dividing line between "fine chemicals" and "heavy chemicals" is by no means sharply drawn or constant.

The product of fine chemicals during 1900 was valued at $4,216,744. It is possible to enumerate only those which were produced in notable quantity and in more than two different establishments, amounting to $3,148,974, as follows: Acetone, 1,638,715 pounds, valued at $178,666; acids, 2,847,575 pounds, valued at $148,971; alkaloide, 3,387,522 ounces, valued at $1,743,264; ammonia, 254,952 pounds, valued at $18,131; ether, 263,238 pounds, valued at $129,876; esters, 576,571 pounds, valued at $66,675; gold salts, 8,594 ounces, valued at $90,145; iodides, 20,714 pounds, valued at $32,831; pepsin, 19,030 pounds, valued at $76,120; phosphorus, 487,690 pounds, valued at $150,000; platinum salts, 7,312 ounces, valued at $54,600; rare earths, 5,373 pounds, valued at $28,200; silver salts, 1,252,604 ounces, valued at $499,345; vanillin, 124,874 ounces, valued at $113,050.

Under the term alkaloids is included caffeine, morphine, pilocarpin, quinine and the other alkaloids from the cinchona barks, and strychnine. To the quantity of ether given in the table should be added 1,400,000 pounds of ether used in the explosive industry, much of which was made from tax-free alcohol and known as "Government ether." Among the esters manufactured for sale were ethyl acetate, ethyl butyrate, amyl acetate, and amyl butyrate. Under the legend "phosphorus" are included upward of 300,000 pounds which were produced by electro-chemical processes. Under "rare earths" there were reported caesium zirconate, cerium oxide, didymium oxide, lanthanum oxide, radioactive barium, thorium nitrate and thorium oxide. The gold and platinum salts were chlorides and the silver salts consisted of the nitrate. The vanillin was synthetic.

In addition, as showing the variety of this manufacture, it may be remarked that there were returned reports on acetanilide, bromine, chloral, chloroform, chloride of sulphur, coumarin, ethyl chloride, formaldehyde and glycosine. Many fine chemicals are undoubtedly lost to this group from having been reported under the head of "pharmaceutical preparations" or drugs, and thus passed to another classification outside of the chemical industry."

This classification not appearing in previous censuses no comparable figures can be given.

GROUP XIX.—CHEMICALS GENERAL, (including all chemical products not especially enumerated elsewhere.)

This group includes a very large variety of products which from necessity are put into a few general divisions. Seventy-eight establishments produced these articles as their chief product, while 107 other establishments made them as a subordinate part of their industry. The amount of each product made in the works, but consumed there in the manufacture of other products, is entered separately so far as known. These products are as follows:—

Products.	Pounds.	Value.
Ammonia, aqua	26,758,068	$1,237,745
Ammonia, consumed	1,524,632	20,488
Ammonium, aqua sulphate	11,094,554	288,667
Ammonium, sulphate consumed	1,681,700	43,724
Ammonium salts, sundry	1,904,479	128,768
Ammonium salts, consumed	423,683	(not given)
Antimony salts	211,956	22,778
Chrome products	15,407,882	1,130,257
Copperas	27,746,570	130,392
Copperas, consumed	1,987,000	7,948
Cream tartar	11,286,680	2,130,104
Dyers' chemicals	6,653,247	105,895
Epsom salts	9,239,809	75,066
Glauber's salts	31,314,255	160,065
Glycerine	15,383,798	2,012,886
Glycerine, consumed	4,000,000	480,000
Lead acetate	1,296,991	73,190
Saltpeter	13,088,680	482,580
Silicate, sodium	65,302,901	416,005
Sulphur, refined	25,998,638	393,548
Tin salts	6,247,205	603,937
Vitriol, blue	8,460,243	544,817
Zinc salts	9,511,909	353,902

In examining these figures it should be noted that such products as the ammonium sulphate produced by the gas and coke industries, the glycerin from the soap and other works, the metallic salts such as the vitriol produced in metallurgical works, are not included here. The aggregate of these products, including the output of industries which do not belong to the chemical category, would therefore be much larger if the actual figures could be secured. No comparable figures were obtained in the census of 1890.

SUB-GROUP XIX A.

In the course of this work schedules were received from 19 establishments, whose principal products were not originally classified in "chemicals," though the products were the result of operations of a chemical nature. As such establishments are more properly included in this category than in any other, and yet cannot well be placed in any of the regular groups, it is deemed advisable to form a special sub-group, XIX A, in which all such are included. Their character and the extent of their operations are shown in the following list:—

	Number of establishments.	Quantity.	Value.
Camphor, refined	3	598,708	$254,190
Casein	3	609,210	30,336
Dextrine and sizes.	4	12,204,570	221,995
Milk sugar	4	1,395,200	110,247
Shellac, refined	3	1,123,752	187,333
Sundry products	2	.....	176,928

MISCELLANEOUS.

The examination of schedules for tabulation has furnished a large amount of products which are not chemical and therefore would not be included in these returns except that they are side products of establishments belonging to this category. They embrace such articles as asphalt for paving, baking powder, bird seed, gluing, brushes, building materials, candles, bone, corks, cottonseed, products, dental plaster, fish, flour, graphite, grease, tallow, horns, hoofs, oils, poultry food, wax, etc., and are roughly valued at $4,175,666.

Reappraisements of Importations.

The following reappraisement of merchandise has been made by the United States General Appraisers since our last report—

26947.—Medicinal preparations, from Pharmecie Gerbay, Roanne, May 7, 1902. Pastelles maltine, entered at 180 francs less 40 per cent. discount, advanced to 120 francs net for 60 boxes.

Petroleum of Borneo.

When your correspondent landed on one of the most southern points of America's new possessions in the Pacific Ocean, the island of Borneo was not very far distant. In fact, a few days' sail was enough to get there from southern Isle de Mindanoa. The run from Jolo was interesting in that the same steamer carried capitalists intending to engage in the new petroleum enterprises in these islands. Petroleum in the island of Borneo, until very lately, amounted to but a small matter. There were native concerns interested in developing the oil discoveries, but the work was not prosperous, and the output of oil was small. Recently foreign enterprise has taken a hand, with the result that new and rich borings have been found and operated in with good results. The island is in tertiary stratum. The oil wells and springs have been located and operated mostly along the coast line, although it is stated that the interior contains springs of rich petroleum oils. Along the northern coast of the island is Seknati, and in this locality a number of wells have been drilled by hand and oils found. The boring devices first penetrated beds of clay, followed by strata of ferruginous sands. These sands were seen to be intersected freely by petroliferous shales. This oil is of a bituminous character and of extensive viscosity. There are also oil wells in successful operation in the territory of Brunei. Along the southern coast line there are oil wells at Kotei and Tandjany. In the vicinity of Balangan the Dutch have worked at the oil deposits and there are several producing wells in order, one or two of which are of the spouting class. The oil well engineers refer to cases in which spouting wells covered the surfaces of the rivers with the oils several times during the past year. There is an oil well at this place which spouts several hundreds of barrels of oil per day at specific periods of the year.

OIL WELL IN BORNEO.

It seemed to me that much of the petroleum stratum in the island of Borneo was confined to the reservoir plan, concealed within the walls of rocky beds, in hillsides, something after the fashion of the sketching in Fig. 1. I was informed of several instances in which the oil people secured valuable flows of oils from side hills by tapping into the springs. It appears that the reservoirs collect the oils from the sands and shale and in course of time, when the gases formed by the oils create sufficient pressure, the oils are forced upward or outward toward an outlet. In this instance the petroleum is forced from the oil reservoir along the line of the channel formed by the oil pressure as at b, emerging by oozing at c. The natives observe these oil indications by the residue on the soil and vegetation, and by the odor created. Sometimes a lighted match or cigar carelessly thrown upon the ground ignites the oil. The greenish, muggy oil deposits readily reveal the presence of the oil, and even the untutored natives, unfamiliar with oil and its value, detect the same and seek to preserve it by catching it in tubes. Often the oil flows down the side of the grade as at d after passing out through the fissure at o. Then oil springs form at the base, or the running waters of nearest springs are surfaced with the oil. One

may observe this oil film on the springs and follow the course to the fountain.

GENERAL STRATA.

I secured from engineers drawings representing the general strata of the Borneo hills in the locality of the oil deposits. The sketching in Fig. 2 is a representation. The crown of the hill is first shown, topped with ordinary rock and earth. Then, as a rule, there is quite a heavy stratum of chalk, followed often by deposits of lime. Below this comes the oil strata and then oil stone. This oil stone has been taken out in places and marketed with paying returns. The apparatus for working the stone and getting it ready for export is crude, and for this reason there is not much of an export sale. Sandstone usually follows the oil stone.

CRUDENESS OF WORKING DEVICES.

You will note that in nearly all of the petroleum working sections that the old types of working apparatus are employed. In very many instances no devices at all are used and the workmen merely dig into the soil just as a farmer would sink a well for drinking water. Surface wells are often made and walled up for protection, and then the boring begins, with very inferior instruments. The pick and the shovel with windlass and buckets form the chief devices. I did, however, observe a few working devices, and in Fig. 3 is a drawing of one of them, made mostly from lumber and operated by a small boiler and engine, the belt for transmitting the power being at g. The power is received on the wheel f and this is turned so as to give the necessary motion to the rod operating the beam. The beam is supported at the top of the stand e. The drill rod connection is h and this extends down into the hole i. The boring tools are of hand made design, very crude in usefulness.

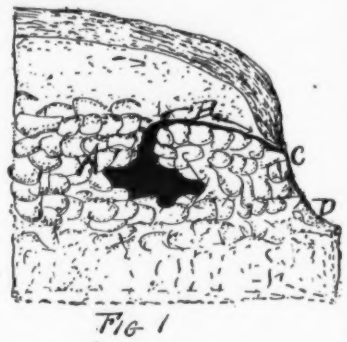


Fig 1

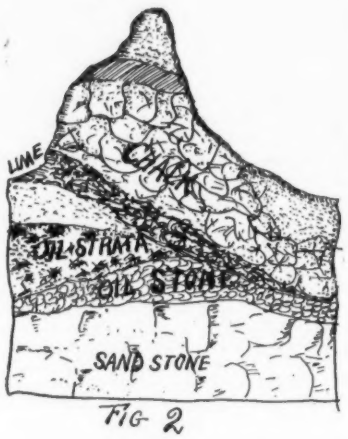
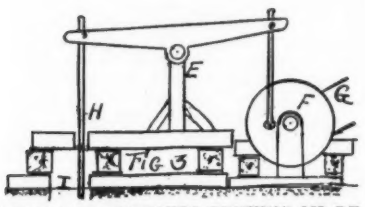


Fig 2



SECTIONAL SKETCHES SHOWING OIL DEPOSITS IN ISLE OF BORNEO.

The earth when loosened is removed in buckets or by sinking hollow wood tubes with a hinged bottom, which can be opened to let in the loosened earth and closed when lifting out.

OIL-SATURATED PAVINGS.

The people of Borneo are not without their ideas concerning the construction of proper highways, and we will note some of the oil paving block roads The dust of Borneo is a nuisance, and for this and other reasons means are taken to protect vehicles and persons by using oil-soaked pavings. The process consists in first cutting the wood pieces into the required designs of paving blocks. Some of the blocks are circular and cut direct from the tree by sawing across, resulting in the block shown in Fig. 4. Another pattern of paving block for this purpose is shown in Fig. 5, and it is cut slab fashion and is permitted to lay in oil for several weeks until the fiber is very thoroughly infected with the oil. The oil makes the blocks heavy and causes them to swell a little. Sometimes the perfectly square blocks is used, such as is shown in Fig. 6.

PROCESS OF SATURATION.

In figure 7 we show the mode utilized for saturating the cubes of wood with the oil. The oil is brought in from the wells and used in crude form and also refined. The vat for this work is usually built of stone and is about ten feet square and four or five feet deep, a part of it being under ground. The sides are banked up with earth. The wall work is marked j in the drawing. Then there are three or more beams placed along the bottom of this tank, as at k and these are crossed with planks about an inch apart, so that the oil can pass freely. Then the pyramid of blocks is built as shown. These are weighted to keep down, usually stones being used. The blocks are piled so as to expose as much surface as possible to the oil. Then the oil is admitted into the vat and the process of saturation begins and lasts until the fiber of the wood is well impregnated. A porous fibered wood is used, including several varieties.

Fig 4

Fig 5

Fig 6

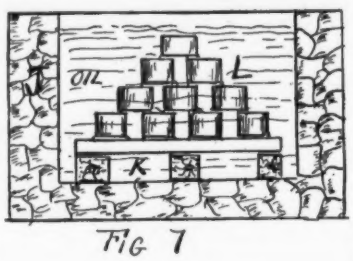


Fig 7

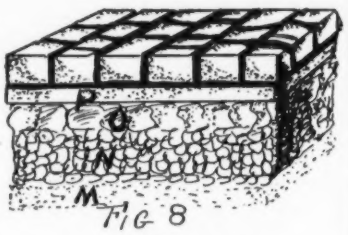


Fig 8

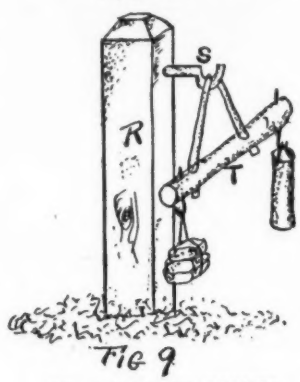


Fig 9

OIL ROADS OF BORNEO.

PLACING THE BLOCKS.

The street work involves the employment of the oil saturated paving blocks as illustrated in figure 8. The road bed is cleared away and a base work of sand placed on as at m. This is covered with a layer of assorted stones, the sorting being done by prison labor. This thickness is marked n. Then comes a layer of stone of larger size, indicated by the letter o.

Then there is a cement-like composition put on like p, made with care and correctly placed. The native cementing substances are used for this and when hard the thickness is very firm. Then the oil saturated blocks are put on and the road is finished. There is a system of sprinkling the surface with oil every few weeks, thus keeping the blocks in a good, oily condition. The roads are graded to let the water run off. No dust flies. The wheeling is elastic.

HOW THEY WEIGH YOUR OIL.

Borneo has some pretty good appliances in a general way, and yet you find exceedingly crude apparatus occasionally. In weighing out some oil in one place a scale like that in figure 9 was used. A post, r, had been set up and an iron hook, s, set into it. This hook supports the balance beam, t. At one end stone weights are fixed as shown, while the other end holds the tube for containing the oil for measurement or for weighing.

Rhimbe, the Wax-Resin of Madagascar.

The Office of Foreign Commerce has received from Madagascar, under the name of "vegetable wax furnished by the rhimba tree," a product whose botanic origin remains undertermined; no indication has been furnished concerning the mode of its extraction or the use to which it is applied in its native country. There are points to be elucidated concerning this curious substance.

The following data give the results of some experiments relative to its constitution and properties:—

Appearance.—It is in the form of small irregular tabular masses, one of the faces of which (external) is mamilated, and the other face nearly smooth and adhering to flakes of bark of a reddish brown, proceeding from the producing tree.

The exterior face of most of these masses is incrusted with ligneous and earthy particles, which give it a dirty appearance; but some of them have a smooth surface, although dull and grayish, of columnar form, like many resins which are concreted in the open air on flowing from the surface of the trunks of trees. These masses are fragile, brittle, of conchoidal fracture, and are of a yellowish, opalescent color; they have a slightly aromatic odor, crack under the teeth, then adhering strongly, at first without taste, afterward slightly bitter.

Properties and Composition.—The wax resin rhimba is fusible at 60 deg., entirely soluble in boiling alcohol, and is almost completely soluble in cold alcohol (20 per cent. insoluble). It contains 14 per cent. of vegetable waste. The portion insoluble in cold alcohol consists of an ether, whose fusing point is 72 deg.; saponified with potash this ether yields a salt of potash and an alcohol, both soluble in etheric alcohol. The potash salt can be separated from the alcohol, on account of the insolubility of the first in ether and the solubility of the second. The evaporation of the etherized solution of alcohol furnishes this alcohol; contaminated, it is true, with a small quantity of resin and coloring matter. It has an agreeable odor and certainly differs from glycerine. The part soluble in cold alcohol consists of an acid resin soluble in potash, alcohol and ether, and precipitated by carbonic acid from the alcoholic solution. This resin softens under the heat of the hands, melts at 50-60 deg., and presents great elasticity. The color is a deep brown.

Uses.—These do not seem to be very numerous, on account of the color. It resists all the agents of decoloration commonly employed for beeswax, oxygenated water, alkaline hypochlorites and weak nitric acid. The rhimba wax can certainly be employed as a raw material in the manufacture of sealing and modeling waxes.

The brown product is entirely fusible below 100 deg. C. Still, it will be difficult to provide an economical and simple method of separating the vegetable and earthy particles which contaminate it. Efforts to melt and filtrate the product have been made, but its viscosity and the density of the impurities, which equal that of the mass in fusion, are obstacles to an advantageous separation. The yield in this way is but 15 per cent. But by operating with a hydraulic press, having plates heated to 90 deg. C., almost all of the purified wax resin can doubtless be extracted.

The possibility of the economical separation of the wax, properly so called, and of the resin, remains to be studied. The high fusing point of the fatty body (72 C.) renders it suitable for employment in candle-making. As to the resin, its deep color will probably exclude it from the varnish industry.—La Revue des Produits Chimiques.

FOREIGN MAILS.

The following table gives the date and time of closing the mails for foreign countries at the New York Postoffice. A star indicates that letters may be addressed per steamer named for the countries indicated. A dagger indicates that registered mails close at 6 p. m. on the previous day. In case of mails via steamers from Pacific ports the hour of closing is up to the date specified.

After the closing of the supplementary transatlantic mails named below additional supplementary mails are opened on the piers of the American, English, French and German steamers, and will remain open until ten minutes of the hour of sailing of steamer.

Regular and supplementary mails close at foreign station half an hour later than closing time shown below (except that supplementary mails for Europe and Central America, via Colon, close one hour later at foreign station).

Mails for—	Steamer.	Date.	Mails close at P. O. Regular.	Suppl.
Italy direct*	Sicilia	July 8..	8.30 a. m..	—
Jamaica (From Boston)	Adm. Farragut	July 8..	11.30 p. m..	—
Central America (except Costa Rica) and South Pacific ports, via Colon	Advance	July 8..	9.30 a. m..	10.30 a. m.
Argentine, Uruguay and Paraguay	Honorius	July 8..	12 m..	—
Porto Plata*	Capt. Bennett	July 8..	11.30 p. m..	—
Grenada, Trinidad and C. Bolivar	Maracas	July 9..	10 a. m..	—
Turk's Island and Dominican Republic	Seminole	July 9..	12.30 p. m..	1 p. m.
Europe, via Southampton	Philadelphia	July 9..	6.30 a. m..	—
Jamaica (From Boston)	Admiral Schley	July 10..	11.30 p. m..	—
Cuba, Campeche, Yucatan, Tabasco and Chiapas*	Esperanza	July 10..	8 a. m..	—
France, Switzerland, Italy, Spain, Portugal, Turkey, Egypt, Greece, Br. India and Lorenzo Marquez*	La Lorraine	July 10..	7 a. m..	—
North Brazil	Hungaria	July 10..	7.30 a. m..	—
Barbadoes and Brazil	Catania	July 10..	10.30 a. m..	—
Newfoundland	Livonian	July 10..	11.30 p. m..	—
Mexico	Santiago	July 11..	12 m..	—
Bermuda	Steamer from Halifax	July 11..	6.30 p. m..	—
Newfoundland	Rosaland	July 12..	7 a. m..	—
Leeward and Windward Islands, British, Dutch and French Guiana	Korona	July 12..	12.30 p. m..	1.30 p. m.
Cuba, via Havana	Morro Castle	July 12..	10 a. m..	—
Scotland direct*	Anchoria	July 12..	9.30 a. m..	—
Europe, via Queenstown	Etruria	July 12..	7.30 a. m..	9 a. m.
Fortune Islands, Jamaica, Savanilla and Cartagena	Altai	July 12..	9.30 a. m..	10.30 a. m.
Porto Rico, Curacao and Venezuela	Philadelphia	July 12..	9 a. m..	9.30 a. m.
Netherlands	Ryndam	July 12..	7.30 a. m..	—
Belgium direct	Friesland	July 12..	10 a. m..	—
Denmark direct	Norge	July 12..	11 a. m..	—
Haiti and Santa Marta	Adirondack	July 12..	9.30 a. m..	10.30 a. m.
Cuba, via Matanzas	Curityba	July 12..	12.30 p. m..	—
China and Japan, via Tacoma	Tacoma To	July 4..	6.30 p. m..	—
Philippine Islands, via San Francisco	U. S. Tr'sport.	To July 11..	6.30 p. m..	—
§Hawaii, China and Japan, via San Francisco	Doric To	July 11..	6.30 p. m..	—
§Hawaii, via San Francisco	Alameda To	July 7..	6.30 p. m..	—
§Australia (except West Australia and New Zealand) and Fiji Islands, via Vancouver and Victoria, B. C.	Moana To	July 19..	6.30 p. m..	—
§Australia (except West Australia), New Zealand, Hawaii, Fiji and Samoan Islands, via San Francisco	Ventura To	July 19..	6.30 p. m..	—
§Tahiti and Marquesas Islands, via San Francisco	Maraposa To	July 10..	6.30 p. m..	—
§Hawaii, China, Japan and Philippines, via San Francisco	Nippon Maru.	To July 19..	6.30 p. m..	—
China and Japan, via Vancouver and Victoria, B. C.	Emp. of India.	To July 22..	6.30 p. m..	—
China and Japan, via Seattle	Riojun Maru.	To July 9..	6.30 p. m..	—

Mails for Newfoundland by rail to North Sydney, and thence by steamer, close at the postoffice daily at 6.30 p. m. (connecting close here every Monday, Wednesday and Saturday). Mails for Miquelon, by rail to Boston, and thence by steamer, close daily at 6.30 p. m. Mails for Miquelon, by rail to Boston, and thence by steamer, are despatched daily, except Thursday; final connecting closes, for despatch, via Port Tampa, on Mondays, Wednesdays and Saturdays, §5.30 a. m.; for despatch via Miami, on Mondays and Saturdays at 6.30 p. m. Mails for Mexico City, overland, unless specially addressed for despatch by steamer, close daily except Sunday, at 1.30 p. m. and 11.30 p. m., Sundays at 1.00 p. m. and 11.30 p. m. Mails for Costa Rica, Belize, Puerto Cortez and Guatemala, by rail to New Orleans, and thence by steamer, close daily except Sunday at §1.30 p. m.; Sundays at §1.00 p. m. (connecting close here Mondays for Belize, Puerto Cortez, and Guatemala, and Tuesdays for Costa Rica). §Registered mail closes at 6.00 p. m. previous day.

INDUSTRIAL SECURITIES.

Reports from the principal trade centers indicate that the usual slackening off in trade incident to the midsummer period has taken place. The total volume of business, however, shows no important falling off, and the claim is made that trade is better than at the corresponding period last year. The transportation companies report but slight falling off in freights and claim the movement far in excess of that of a year ago. In the lines of trade represented by the Reporter the report of midsummer dullness is almost uniform. The demand for drugs has been very light, the business passing being reduced to jobbing proportions. Dyestuffs have continued quiet, and the dye works, being still idle, are not in the market, and will probably not become liberal purchasers for some time to come. Chemicals and oils have also been quiet, though not unusually so for Fourth of July week, which this year comprises but four business days. Paints, while in good request for the season, show a considerable falling off, but indications are regarded as exceptionally promising for an early opening of an active Fall trade. The industrial situation has developed no new features of importance. Present conditions and future prospects are regarded as all that could be wished, except as affected by labor complications, but few fears are now entertained that there will be strikes of importance, as those threatened of late have failed to materialize. There is now less hesitation in making contracts involving future production. The labor situation cannot be said to have improved, although the strikes which had been threatened as to take effect on the opening of the present month have not taken place, and it is thought the strike fever is subsiding. The important strikes still in force, and especially in the mining regions, are still causing trouble, and rioting has been indulged in, while the outlook is as uncertain as at any time since they began, although claims of gain are made by both sides. Very few new strikes are reported, but neither have many of those in force a week ago been settled. The great agricultural staples, except cotton, have developed increased strength and closed at an advance, while cotton has weakened. Wheat opened on Monday at 79¾c., the lowest point of the week, and advanced to 82¼c. on Tuesday, but later eased off on more favorable crop reports and closed on Thursday at 80¾c. for July delivery. Corn started the week at 67½c. and advanced to 69¾c., but receded later and closed on Thursday at 68½c. for July delivery. Oats sold at 55c. on Monday, advanced to 55½c. on Tuesday and continued strong at that figure to the close. Cotton was rather weak. The range for the week was 8.67@8.84c., with the close on Thursday at 8.74c. for July delivery. Lard advanced almost daily, with the range for the week at Chicago for July delivery at 10.55@10.75c., with the close on Thursday at the highest. The market for time money has been slightly easier, while the supply has been good and the demand has been rather light. Rates at the close were 4⅛@4¼ per cent. for 30 to 60 days, 4½ per cent. for 90 days, and 4½@4¾ per cent. for longer periods, with 5@5½ per cent. on mixed collateral. Money on call of the Stock Exchange has ranged from 3 to 7 per cent., with the bulk of the business done at 4@4½ per cent. The average rate was 4½ per cent. The closing rate on Thursday was 3 per cent. Mercantile paper has been moving very slowly the past week, with the supply moderate and the demand light. Rates at the close were 4¼@4¾ per cent. for 60 to 90 days' indorsements, 4½@5 per cent. for choice single names having four to six months to run, and 5@5½ per cent. for other grades. The price of bar silver has varied but little and closed at 52⅞@53⅜c. for commercial bars and at 53@54⅜c. for Government assay bars, showing no change from the closing price of last week. Mexican dollars closed at 42c. bid and 43½c. asked. The market for sterling exchange was firm early in the week, and later strengthened, but was inactive and closed slightly higher. Rates for actual business at the close were 4.85½@4.85⅝ for 60 days, 4.87⅞@4.88 for demand, and 4.88¼@4.88⅝ for cables. The supply of grain and cotton bills has continued very light, and at times was scarce, while the rates have remained steady and the demand was light. Rates at the close were 4.84¾@4.85¾. The Industrials were but lightly traded in, Sugar stock alone showing average transactions. There were no features of interest, and the price changes were unimportant and without special significance. The dullness was due to the fact of this being a broken week, when many of the operators take the opportunity of an outing. The general list of securities dealt in on the Stock Exchange has experienced irregular price movements and was to some extent affected by crop reports, and as these became more favorable the market showed strength, but was rather quiet throughout and closed decidedly dull.

Sugar stock was the only one of the Industrials showing much life. It was said that the buying was mainly in the interest of officials of the concern and this caused a feeling of strength. Later came the announcement of comprehensive plans for competition by the Federal Sugar Company, but they had no important effect, as buyers were ready to take advantage of every drop. The last sale on Thursday was at 128¾.

The fluctuations during the week have been from 125¾@130¾, the lowest Monday and the highest Wednesday, closing on Thursday at 128¾ bid.

Cotton Oil stock showed some weakness early in the week, but as lard and other greases continued to advance the prospects were regarded as showing improvement for cotton oil and bids advanced. Trading, however, was very light. The last sale on Thursday was at 52.

The fluctuations during the week have been from 51¼@52, the lowest Tuesday and the highest Thursday, closing on Thursday at 51¾ bid.

Lead stock received considerable attention early in the week, but was inclined to sag owing to reports of falling off in trade, though, as this is usual at this season of the year, it should have had no effect, but was seized upon by those who hoped to depress the stock and make an opportunity to buy. The last sale on Thursday was at 21¼.

The fluctuations during the week have been from 21⅛@22½, the lowest Wednesday and the highest Monday, closing on Thursday at 21¼ bid.

Linseed Oil stock was sparingly traded in, sales being reported on Tuesday and Thursday only. There was no news to affect the stock, which was regarded with more favor on account of the high prices maintained for the products of the concern. The last sale on Thursday was at 23.

The fluctuations during the week have been from 23@24, the lowest Tuesday and the highest Thursday, closing on Thursday at 23 bid.

Va.-Car. Chemical stock appeared to be influenced by the course of the general market, but showed weakness, though to what this was due was not clear, there being no news beyond the reports of new concerns at the South, which, however, will not be in operation for months. The last sale on Thursday was at 68⅜.

The fluctuations during the week have been from 68¼@69⅜, the lowest Thursday and the highest Monday, closing on Thursday at 68⅜.

Corn Products stock was almost entirely neglected, only one sale being reported on Monday at 28½. This was bid during the remaining days, but there were no offers under 29. There was no news and no reports to affect the stock.

In the following table are given the closing quotations Friday night. The market review is complete to Saturday's close.

Name.	Stock Outstanding.	Dividends Payable.	Last Dividend.	Bid.	Asked
Am. Agc'l Chemical Co.	$16,715,600	Q.—J.	.....	25	29
pref. 6%*	17,153,000	A.&O.	Apr. 1, '02, 3%	—	88
Am. Alkali Co.	24,000,000	.....	.....	⅝	⅞
pref. 6%*	2,400,000	.....	.....	..	..
Am. Chicle Co.	6,000,000	Q.—J.	June 10, '02, 1%	100	103
pref. 6%*	3,000,000	Q.—J.	Apr. 1, '02, 1½%	90	92
Am. Cotton Oil Co.	20,237,100	D.	Dec. 2, '01, 2%	51½	52½
pref. 6%	10,198,600	J.&D.	June 2, '02, 3%	94	98
bonds, 4½ g.	3,000,000	Q.—F.	.....	..	..
Am. Degras Co.	500,000	.....	.....	..	..
Am. Linseed Co.	16,750,000	.....	.....	23	24
pref. 7%	16,750,000	Q.—M.	Sept. 15, '00, 1¾%	50½	54
Am. Smelt. & Ref. Co.	50,000,000	.....	.....	47	47¼
pref. 7%*	50,000,000	Q.—J.	July 8, '02, 1¾%	98	98¼
Am. Snuff Co.	11,001,700	.....	.....	121	124¾
pref.	12,000,000	J.&J.	Apr. 1, '02, 1½%	98	98¾
Am. Soda Fountain Co.	1,250,000	.....	.....	3	6
pref.	1,250,000	.....	Nov. 20, '01, 6%	55	65
2d pref.	1,250,000	.....	.....	14	18
Am. Straw Board Co.	6,000,000	Q.—M	Dec. 27, '00, 1%	37	37½
Am. Sugar Refining Co.	44,246,100	Q.—J.	Jan. 2, '02, 1¾%	128⅝	128¾
pref. 7%*	44,068,300	Q.	Jan. 2, '02, 1¾%	119	120
Am. Tobacco Co. 6%	54,500,000	Q.—F.	May 1, '02, 2½%	..	..
pref. 8%	14,000,000	Q.—F.	May 1, '02, 2%	146	150
div. scrip 1898 6%	3,024,490	M.&N.	.....	..	..
Am. Window Glass	13,000,000	.....	Apr. 15, '02, 1½%	62¼	62½
pref. 7%	4,000,000	M.&S.	Mar. 1, '02, 3½%	..	..
Celluloid Co. 6%	5,925,000	Q.—J.	Apr. 1, '02, 1½%	..	..
Chesebrough Mfg. Co.	500,000	.....	.....	450	470
Compressed Gas Capsule Co.	13,500,000	.....	.....	..	..
pref. 8%	1,500,000	.....	.....	..	..
Continental Tobacco Co.	48,844,600	.....	Apr. 2, '02, 2½%	66¼	66½
pref. 7%	48,846,100	Q.—J.	Apr. 2, '02, 1¾%	122½	123¾
Con. Stock & Pet. Ex. Mem.	†($2,500)				
Corn Products Co.	50,000,000	Q.—J.	July 10, '02, 1¾%	28½	29
pref. 7%*	30,000,000	.....	.....	84	85
Diamond Match Co.	15,000,000	Q.—M.	Mar. 12, '02, 2½%	133½	135
Distilling Co. of America	44,542,927	.....	.....	5¼	5¼
pref. 7%*	29,462,218	.....	.....	36¼	36¾
Dixon Crucible Co.	734,500	J.&J.	July, '01, 3%	..	..
Fisheries Co.	532,867	.....	.....	..	..
pref.	2,000,000	J.&J.	Jan. 1, '01, 3½%	..	..
General Chemical Co.	7,410,300	Q.—M.	June 1, '02, 1%	64	66
pref. 6%*	9,416,000	Q.—J.	July 1, '02, 1½%	98	102
Glucose Sugar Refining Co.	24,027,300	Q.—M.	Dec. 2, '01, 1%	..	..
pref. 7%*	13,638,300	Q.—M.	Dec. 2, '01, 1¾%	..	..
Harrison Bros. Co.	1,000,000	.....	.....	..	..
pref.	1,500,000	Q.—F.	Aug. 15, '01, 1¾%	..	..
bonds, 5%, 1924	1,300,000	.....	.....	..	..
International Pulp Co.	5,000,000	.....	.....	..	..
Maritime Ex. Mem.	†($55)				
National Lead Co.	14,905,400	.....	Mar. 1, '00, 1%	21⅛	21⅜
pref. 7%*	14,904,000	Q.—M.	June 15, '02, 1¾%	87	88½
National Wall Paper Co.	30,000,000	.....	.....	..	55
pref. 8%	3,000,000	.....	.....	..	..
New Jersey Zinc Co.	10,000,000	.....	.....	..	234¼
Penn. Salt Mfg. Co.	3,000,000	A.&O.	Apr. 15, '02, 6%	112	..
Pittsburgh Plate Glass Co.	9,850,300	Q.—J.	.....	148	150
pref.	150,000	.....	.....	257	..
P. Lorillard Co.	5,000,000	.....	.....	..	..
pref. 8%*	2,000,000	Q.—J.	Jan. 2, '02, 2%	115	..
Planters' Compress Co.	20,000,000	.....	.....	5	7
Procter & Gamble Co.	4,500,000	Q.—F.	May 15, '02, 3%	..	..
pref. 8%*	2,250,000	Q.—J.	July 15, '02, 2%	..	..
1st mort. bonds, 6% g.	1,000,000	J.&J.	.....	113	116
Produce Exchange Membership	†($475)				
Quicksilver Mining Co.	5,708,700	.....	.....	3¾	4
pref. 7%	4,291,300	.....	May 9, '02, ½%	9⅞	10½
Royal Baking Powder Co.	10,000,000	.....	.....	..	..
pref. 6%*	10,000,000	Q.—J.	Mar. 31, '02, 1½%	104½	105½
Southern Cotton Oil Co.	2,000,000	J.&D.	June 14, '02, 4%	55	55½
Standard Oil Co.	97,500,000	Q.—M.	June 16, '02, 10%	655	660
Stillwell, Bierce & Smith Valle Co.	500,000	.....	.....	..	..
U. S. Glass	.....	.....	.....	36	37
pref.	.....	.....	Mar. 10, '02, 4%	140	150
U. S. Leather Co.	62,882,300	.....	.....	12⅝	12¾
pref. 8%*	62,282,300	Q.—J.	Apr. 2, '02, 1½%	84⅛	84¾
bonds, 6% g.	5,280,000	M.&N.	.....	..	..
U. S. Playing Card Co.	3,600,000	.....	.....	89¾	90
U. S. Printing Co.	3,500,000	.....	.....	80	83
U. S. Rubber Co.	23,666,000	.....	Apr. 30, '00, 1%	14½	14¾
pref. 8%	23,525,500	Q.—J.	Jan. 31, '01, 1%	54	55½
Union Talc Co.	1,000,000	.....	.....	..	..
Virginia-Carolina Chem. Co.	27,984,400	Q.—M.	June 1, '02, 1¼%	68¼	68½
pref. 8%*	12,000,000	Q.—J.	Apr. 15, '02, 2%	129	129½

*Cumulative. †Price of last seat sold.

INTEREST ON DEPOSITS.

THE NEW JERSEY TITLE GUARANTEE AND TRUST COMPANY

CAPITAL, - - - $200.000.00
UNDIVIDED PROFITS, - - 650.000.00

Receives Deposits Subject to Check and Allows Interest on Daily Balances, Issues Time and Demand Certificates of Deposits Bearing Interest.

Important to Renters of Safe Deposit Boxes in New York

"THE LEGACY AND INHERITANCE TAX LAW," as enacted under the laws of the State of New York, section 9, chapter 399, of 1892, authorizes city or county officials to examine the contents of Safe Deposit Boxes at the death of renter, in order to determine the amount of tax to be levied on the estate

Boxes to Rent from $5 to $300 per Annum.

The New Jersey Title Guarantee and Trust Company, 83 & 85 MONTGOMERY ST.
JERSEY CITY, N. J.

PETROLEUM MARKET.

Saturday Noon, July 5, 1902.

While an increase in new production was not expected as one of the features of the monthly field report, the increase was small when the considerable increase in the number of new wells completed is taken into account, and altogether the monthly report is bullish in its tenor and regarded as fully warranting the advance in price announced a week ago. The results of the operations during the present month are regarded as more important as indicating the prospects of an important permanent increase in production, owing to the considerable increase in new work under way. The large percentage of dry holes was a discouraging feature last month, but operators are not deterred in their search for oil in advance of defined limits. While the average production of the new wells has been small it, nevertheless, assures good returns at present prices, and those fortunate enough to secure a large well reap a rich harvest. It is the occasional strike of a large well that proves the incentive to active work, and, like the drawing of a large prize in a lottery, induces others to drill wells in the hope they may be equally fortunate. During the past two weeks a number of new wells, showing an initial production of from 100 to 400 barrels have been reported, and for one 700 barrels was claimed, and to these must be credited the increase in new production, as the larger number of dry holes would naturally have resulted in lower output, notwithstanding the increase in the number of wells completed. With corresponding increase in strength in the statistical situation the operators hope for further enhancement of prices, the general impression being that the forthcoming pipe line reports will show a material change in the statistical situation.

Refined and Products.

The requirements of refined for export continue large for the season, and the tank fleet continues to be steadily employed, the outward movement varying only as a larger or smaller number of tank vessels are on this side. The conditions abroad show no change, although renewed efforts are being put forth by refiners in other countries to secure a larger share of the European and Asiatic trade. The total engagements during the past week amount to about 175,000 bbls., nearly all for shipment in bulk. The price for barreled oil has remained steady at 7.40c. for New York loading and at 7.35c. for Philadelphia loading. The principal foreign markets are steady. Quotations to-day by cable were: Antwerp, 18f.; Bremen, 6.35m.; London, 6¾d., and Liverpool, 7@7⅛d. Freight rates are steady at 2@2s. 3d. hence to London, and 2s. 3d. @3s. 3d. to Continental ports, as to port and vessel. Home trade lots have been in fair request and are firm on the basis of 8½c. for 150 deg. water white from tanks and 11c. in barrels.

Cases for export have been in fair request, and sales of about 200,000 are reported. The price of plain tops has been steady at 8.50c. Freight rates are steady. Nominal rates for large vessels are: For Amoy, 25@26c.; Calcutta, 15@16c.; Colombo, 21@22c.; Java, 21@22c.; Padang, 25@26c.; Hong Kong, 18@19c.; Rangoon, 23½@24c.; Saigon, 24@25c.; Shanghai, 21@22c.; Singapore, 23@24c., and Yokohama, 22@23c.

Crude for export has been in active request, and sales of over 85,000 barrels are reported. Washington crude is quoted at 7.40c. in barrels. Cases for export have not been in request, and no sales are reported.

Crude naphtha has been steady at 9.05c. For export no sales have been reported.

Closing Quotations.

CRUDE.

National Tran. certificates, ℔ bbl.	$1.22	@1.23
Washington crude, in bbls. ℔ gal.		7.40
Washington crude, in bulk		4.85
Residuum, bbls., for export	6 @	6¼

CRUDE AT THE WELLS.

The following are the prices paid by the pipe lines for crude as delivered from the wells:—

	1902.	1901.
Tiona ℔ bbls.	$1.37	$1.20
Pennsylvania	1.22	1.05
Corning	1.05	88
New Castle	97	80
Whitehouse	92	—
North Lima	89	79
South Lima	84	74
Indiana	84	74
Somerset	74	74
Lacy	73	69
Canadian Oil:—		
Petrolia	1.76	—
Oil Springs, less pipeage	1.83	—

REFINED—FOR EXPORT.

Cargo lots for export ℔ gal.	—	@7.40
In bulk	—	@4.85
Philadelphia loading	—	@7.35

REFINED—JOBBING LOTS.

In barrels, pkgs. included.

120 fire test, S. W. ℔ gal.	— @	9¾
130 fire test, S. W.	— @	10
150 fire test, W. W.	— @	11
In bulk from tanks	— @	8½
300 fire test	9¼@	9¾

REFINED IN CASES—110 FIRE TEST.

Two five low screw, cargo lots	8.50
5,000 to 10,000	8.60
1,000 to 5,000	8.70
700 to 1,000	8.80
400 to 700	8.90
300 to 400	9.00
200 to 300	9.10
100 to 200	9.30
Under 100	9.50

NAPHTHA AND GASOLINE.

Naphtha, crude, car lots, 68@72 deg.	—@	9.05
crude, cargo lots, 68@72 deg.	—@	9.05
crude, 70 deg.	—@	10.55
sweet, 62 or 63 deg.	—@	11½
76 deg.	—@	12½
"stove"	—@	12
Gasoline, 86 deg	@	15
88 deg	—@	17
90 deg	—@	20

Petroleum Statistics.

			Day.	Total Reported.
Friday,	June 27		91,346	2,018,234
Sat.-Sun.,	" 28 & 29		201,802	2,220,036
Monday,	" 30		112,518	2,332,554
Tuesday,	July 1		84,321	84,321
Wednesday,	" 2		90,246	174,567
Thursday,	" 3		.....	.....

	1899.	1900.	1901.	1902.
Jan....	2,420,071	2,836,815	2,934,948	2,559,185
Feb....	2,222,889	2,511,036	2,509,852	2,199,982
March..	2,049,528	2,945,673	2,860,586	2,560,762
April...	2,618,219	2,889,993	2,791,932	2,635,929
May....	2,705,791	3,074,578	2,921,334	2,713,013
June...	2,740,897	3,000,272	2,712,780	.....
July...	2,776,507	3,032,983	2,915,841	.....
Aug....	2,872,114	3,125,114	2,862,228	.....
Sept....	2,764,932	2,920,457	2,585,682	.....
Oct....	2,833,408	3,196,985	2,755,311	.....
Nov....	2,806,384	2,947,155	2,519,915	.....
Dec....	2,736,687	3,014,468	2,566,706	.....
Year..	32,207,577	35,486,529	32,946,116	.....
Average	2,683,968	2,957,211	2,745,509	2,533,774

DELIVERIES—PENNSYLVANIA OIL.

			Day.	Total Reported.
Friday,	June 27		98,463	2,265,363
Sat.-Sun.,	" 28 & 29		200,098	2,465,461
Monday,	" 30		82,351	2,547,812
Tuesday,	July 1		93,826	93,826
Wednesday,	" 2		103,557	197,383
Thursday,	" 3		.....	.....

	1899.	1900.	1901.	1902.
Jan....	2,475,510	2,887,970	3,135,704	3,013,150
Feb....	1,899,859	2,747,666	2,585,297	2,282,872
March..	2,626,415	2,797,661	2,885,557	2,618,412
April..	2,377,483	2,844,496	2,854,188	3,447,301
May....	3,578,579	2,793,247	3,033,527	3,410,053
June...	2,537,921	2,880,483	2,843,781	.....
July...	2,357,715	2,756,173	3,287,511	.....
Aug....	2,779,114	3,383,582	3,250,421	.....
Sept....	2,700,000	3,031,430	3,075,809	.....
Oct....	2,739,176	3,002,215	3,244,610	.....
Nov....	2,601,115	3,144,739	3,116,322	.....
Dec....	2,593,652	3,088,358	3,026,982	.....
Year..	30,276,630	35,358,024	36,339,709	.....
Average	2,523,052	2,946,502	3,028,309	2,953,357

CHARTERS—CRUDE EQUIVALENT.

		Day.	Total.	Av'ge.
Sat.-Sun.,	June 28-29	179,365	2,214,603	76,365
Monday,	" 30	88,571	2,303,174	76,772
Tuesday,	July 1	93,650	93,650	93,650
Wednesday,	" 2	47,619	141,269	70,634
Thursday,	" 3	69,841	211,110	70,370
Friday,	" 4	.....	211,110	52,777

	1899.	1900.	1901.	1902.
Jan....	1,736,232	1,859,255	2,397,332	2,878,610
Feb....	1,550,792	1,343,926	1,790,875	1,715,375
March..	2,461,826	2,175,073	2,023,459	2,696,879
April...	1,855,857	1,819,763	2,300,910	1,818,864
May....	2,214,071	1,062,851	2,420,809	1,796,904
June...	2,179,118	2,292,075	2,312,447	2,303,174
July...	2,165,092	2,061,761	2,782,838	.....
Aug....	2,741,504	2,165,198	2,591,191	.....
Sept....	2,199,802	2,164,186	2,459,552	.....
Oct....	2,241,322	2,323,275	2,255,038	.....
Nov....	2,292,703	1,705,256	2,274,245	.....
Dec....	1,692,790	2,027,386	2,229,595	.....
Year..	25,331,111	24,200,004	27,838,291	.....
Av'ge..	2,110,926	2,016,667	2,319,858	2,201,634

CHARTERS FOR THE WEEK.

The total charters for refined, crude, naphtha, etc., in bulk, barrels and cases, during the week ending July 4, and from Jan. 1, were as follows:—

	Week.	Year.	1901.
Refined, bbls. & blk.	200,000	5,316,100	5,502,600
Refined, cases	185,000	7,269,000	11,262,000
Crude, bbls. & blk.	86,400	1,363,300	864,600
Crude, cases	.....	86,000	21,000
Naphtha, bbls.	.....	111,400	141,400
Residuum, bbls.	.....	356,200	293,300
Lubricating, bbls.	.....	74,100	38,100
Total, bbls. cde. eq.	479,046	13,120,140	13,588,582

CLEARANCES FOR THE WEEK.

During the week ending July 4, and since Jan. 1, the clearances of petroleum, in gallons, from the port of New York, were as follows:—

	Week.	Year.	1901.
Refined	5,676,737	350,415,223	259,955,774
Crude	.....	101,177	1,606,049
Naphtha	28,964	6,827,520	6,100,427
Residuum	.....	1,816,551	6,849,999

EXPORT STATISTICS.

The following table shows the total exports from the port of New York and from the United States, reduced to crude equivalent, in gallons, for the week ending July 4, also total shipments to date, with comparisons with 1901:—

From N. Y. for week ending July 4	7,568,983
Total from N. Y. from Jan. 1, 1902	335,326,734
Same period last year	352,664,420
Decrease	17,337,686
From U. S. for week ending July 4	21,204,375
Total from U. S. since Jan. 1, 1902	605,586,934
Same period last year	563,288,871
Increase	42,298,063

TOTAL EXPORTS BY PORTS.

	1902.	1901.
New York	335,326,734	352,664,420
Philadelphia	242,710,358	185,640,006
Baltimore	26,906,340	24,828,112
Boston	305,783	156,333
San Francisco	337,719	.....
Grand totals	605,586,934	563,288,871

Foreign Quotations.

REFINED.

	Antwerp.	Bremen.	London.
Monday	18 @—	6.35	—@ 6¾
Tuesday	18 @—	6.35	—@ 6¾
Wednesday	18 @—	6.35	—@ 6¾
Thursday	18 @—	6.35	—@ 6¾
Friday	18 @—	6.35	—@ 6¾
Saturday	18 @—	6.35	—@ 6¾

PETROLEUM CHARTERS.

Following is a list of vessels chartered and loading or to load petroleum at New York, Philadelphia, Baltimore and Boston. Quantities are refined in bbls. unless stated otherwise:—

New York.

Week ended Feb. 21.

Ger shp Neck, Japan, 19@20c. ..... cs 85,000

Week ended March 14.

Ger shp C H Watjen, Japan, 19c. ..... cs 70,000
Br str Virginia, Shanghai, 23½c. ..... cs 150,000
Dch bk Jeannette Francoise, Sydney, 17½c. ..... cs 90,000
It shp Guiseppe D'All, Sydney, 17c. .. cs 70,000
Ger shp Nixe, Melbourne, 17½c. ..... cs 65,000

Week ended March 21.

Br bk Cedarbank, Melbourne, 17½c. .. cs 110,000
Br bk Marlborough Hill, Sydney, N. S. W., 17c. ..... cs 100,000

Week ended April 4.

Nor bk Patagonia, Baltic, p. t. 7,500
Nor bk Ellen, Baltic, p. t. 8,000

Week ended April 11.

Br shp Brynhilda, Japan, 19@20c. .... cs 60,000

Week ended April 25.

Br shp Lena, Zanzibar, p. t. ..... cs 60,000

Week ended May 2.

Nor shp Patriarch, Denmark, p. t. 8,000

Week ended May 23.

Nor by Electra, Konigsberg, p t. 3,500

Week ended May 30.

Nor bk Jomfruland, U. K., pt. 7,000
It shp Saturnina Fanny, Anjer f. o., 16c. cs 60,000

Week ended June 6.

Br bk Armadale, Sydney, 15c. ..... cs 80,000
Fr. shp Tourville, Melbourne, 16c. .... cs 80,000

Week ended June 18.

Fr shp Leon Bureau, Melbourne, 15c. .. cs 70,000

Week ended June 20.

Br shp Drumburton, Hong Kong, 18c. .. cs 70,000

Week ended June 27.

Br shp Main, Calcutta, 10c. ..... cs 60,000
Nor bk Ansgar, Baltic, p t. 5,500

Week ended July 4.

Br bk Mashona, Adelaide, 14½c. ..... cs 100,000
Br shp King David, Hakodate, 17c. .. cs 85,000

Philadelphia.

Week ended Oct. 11.

Ger shp Renee Rickmers, Japan, 19½c.
Ger shp Robert Rickmers, Japan, 19½c. ..... cs 90,000

Week ended Dec. 13.

Ger bk Niobe, Japan, 25@26c. ..... cs 80,000

Week ended Jan. 17.

It shp Nuova Elionore Madre, Medit. p. t. 5,300
Ger shp Willy Rickmers, Japan, 19c. .cs. 80,000

Week ended April 25.

Br shp Hartfield, Japan, p. t. ..... cs 70,000

Week ended June 13.

Br str Hydra, Japan, 19c. ..... cs 150,000

Week ended June 20.

It bk Teresa Castellano, Cette, 2s. 9d. .. 6,500
It bk Maria Principia, Dover f. o., 3s. .. 2,500
Br str Pocasset, Greece, p. t. ..... cs 75,000

Week ended June 27.

Dan bk Casmar, Baltic, p t. 4,000
Br shp Kennebec, Japan, p t. ..... cs 200,000

Week ended July 4.

Ger shp Louise, London, 2s. 3d. ..... nap 9,000

PETROLEUM CLEARANCES.

Following are the clearances of petroleum from the ports of New York, Philadelphia, Baltimore, Boston and San Francisco on the dates named. Refined, unless otherwise specified:—

New York.

June 24.

Br str Rosalind, St John's, 250 bbls ref, 25 bbls nap
Br str Titania, Dunedin, 251 cs ref, 125 cs ben, 45 cs nap, 5 cs gas
Br str Titania, Auckland, 59,351 cs ref, 1,000 cs ben, 25 cs nap, 25 cs gas
Br str Titania, Wellington, 100 cs ben, 5 cs nap
Br str Titania, Lyttleton, 75 cs ben, 65 cs nap, 20 cs gas
Am str Finance, Colon, 1,380 cs, 2 drs
Br str Hilary, Para, 2,270 cs
Br str Hilary, Manaos, 893 cs

June 25.

Am str Monterey, Havana, 4 bbls, 1 cs
Am str Monterey, Vera Cruz, 200 cs
Br str Merchant Prince, Montevideo, 5,250 cs
Br str Merchant Prince, Rosario, 20,000 cs
Br str Merchant Prince, Buenos Ayres, 17,600 cs

June 26.

Am str Cienfuegos, Cuba, 1,550 cs ref, 6 cs nap
Am str Shawmut, Ponce, 300 cs
Am str Shawmut, Mayaguez, 25 cs gas

June 27.

Br str Laconia, Victoria, Brazil, 8,370 cs
Ger bark C Paulsen, Wellington, 6,000 cs ref, 1,375 cs ben
Ger bark C Paulsen, Lyttleton, 4,000 cs
Nor str Jamaica, Banes, 100 cs
Port str Dona Maria, Lisbon, 6,000 cs
Port str Dona Maria, Oporto, 1,500 bbls, 17,000 cs
Port str Dona Maria, Terceira, 135 bbls, 165 cs
Port str Dona Maria, St Michael's, 350 cs, 80 bbls
Port str Dona Maria, Fayal, 230 cs
Br str Grecian Prince, Pernambuco, 6,030 cs
Ger str Alleghany, Kingston, 60 cs
Ger str Alleghany, Port Limon, 1,075 cs, 8 bbls, 1 dr ref, 3 cs gas
Ger str Alleghany, Savanilla, 200 cs

June 28.

Brig G B Lockhart, Curacao, 57 cs

June 30.

Br str Ottawa, Barrow, 1,240,000 gls blk
Br str Coronda, Rosario, 12,000 cs
Br str Appalachee, Hamburg, 1,550,000 gls blk

July 1.

Dtch str La Campine, Antwerp, 1,100,000 gls blk

Philadelphia.

June 16.

Br str Manchester Market, Manchester, 975 bbls ref, 50 bbls resid

June 21.

Br str Lumen, Dover, F O, 919,956 gls ref, 148,616 gls cde blk
Br str Saxoleine, Furt Blaye, 1,710,605 gls cde blk

June 23.

Br bk Arrow, Hiogo, 121,400 cs
Ger sh Heinrich, Liverpool, 6,652 bbls nap

June 24.

Fr bk Quevilly, Rouen, 1,320,237 gls cde blk
Fr str Le Lion, Amsterdam, 975,000 gls blk
Nor sh Morning Light, Stockholm, 4,500 bbls nap
Nor sh Morning Light, Soderteije, 3,109 bbls nap
Nor bk Grundloven, Stockholm, 4,041 bbls

June 25.

Ger sh Rickmer Rickmers, Hiogo, 79,000 cs
Br str Weehawken, Christiania, 1,270,000 gls blk
Span str San Ignacio de Loyola, Sables D'Olonne, 296,566 gls cde blk

June 27.

Fr bk Jules Henri, Marseilles, 850,616 gls cde blk
Br str Beacon Light, Dover, F O, 1,250,000 gls blk

Boston.

June 24.

Sch Cyrene, Halifax, N S, 250 bbls
Sch Energy, St Pierre, 4,580 gls

June 28.

Str Prince Arthur, Yarmouth, N S, 150 gls

San Francisco.

June 21.

Str Lucila, Mexico, 382 gls
Sch Aloha, Hawaii, 1,429 cs

June 23.

Str Zealandia, Honolulu, 523 cs

June 27.

Sch North Bend, Apia, 102 gls
Sch North Bend, Pago Pago, 280 cs
Bk Kaiulani, Honolulu, 613 cs ref, 5 drs gas

EXPORTS OF PETROLEUM.

Following are the exports of petroleum from the port of New York (in gallons) during the past week and since Jan. 1, as also the exports during the corresponding period of last year:

Refined.

	For week.	Since Jan. 1.	Same time last year.
Aalborg	.....	430,695	464,100
Aarhuus	.....	505,789	870,000
Accra, W. C. A.	.....	10,000	30,000
Adelaide	.....	193,200	1,636,232
Aden	.....	35,000	50,000
Alexandria	.....	....	295,000
Algiers	.....	.....	380,160
Algoa Bay	.....	897,500	552,350
Amsterdam	.....	3,350,695	8,921,000
Anjier	.....	1,890,000	5,338,000
Antigua	.....	18,560	30,134
Antofagasta	.....	30,020	25,500
Antwerp	1,100,000	14,930,000	10,299,950
Arica	.....	3,000	5,000
Auckland	593,510	1,546,700	235,900
Avonmouth	.....	7,615,000	6,950,000
Azim	.....	.....	164,000
Azores	18,573	156,917	99,497
Bahamas	.....	2,451	5,121
Bahia	.....	857,220	1,155,510
Barbadoes	.....	254,858	226,150
Barranquilla	.....	60,060	.....
Barrow	1,240,000	4,375,000	1,215,000
Beira	.....	2,500	1,000
Belfast	.....	1,205,000	.....
Belize	.....	9,500	26,250
Bermuda	.....	204,293	225,750
Bluefields	.....	.....	47,360
Bocas del Toro	.....	23,750	.....
Bombay	.....	3,578,120	1,068,660
Bonny	.....	32,000	43,000
Bordeaux	.....	1,000	.....
Bremen	.....	10,203	22,630
Bremerhaven	.....	.....	1,180,000
Brisbane	.....	915,410	1,058,400
Buenos Ayres	167,760	3,759,320	3,929,847
Cabedello	.....	.....	110,500
Calcutta	.....	2,040,480	2,728,150
Caldera	.....	1,000	2,500
Callao	.....	87,000	176,500
Campeche	.....	750	3,710
C. Coast, W.C.A.	.....	40,000	25,000
Cape Gracias	.....	.....	1,500
Cape Town	.....	878,780	1,291,090
Cartagena	.....	120,130	52,980
Carupano	.....	14,670	18,450
Catania	.....	50,000	.....
Casa Blanca	.....	35,200	.....
Ceara	.....	85,400	91,350
Ceiba	.....	.....	250
Chefoo	.....	.....	617,260
Christiansand	.....	.....	875,000
Ciudad Bolivar	.....	65,150	60,940
Colombo	.....	383,450	100,000
Colon	13,900	380,050	335,582
Conakry	.....	145,000	20,000
Copenhagen	.....	1,325,000	1,425,150
Corinto	.....	.....	69,300
Corn Island	.....	.....	11,497
Coro	.....	13,220	23,720
Corral	.....	60,000	20,000
Cuba	17,460	673,590	736,487
Cumana	.....	3,000	4,750
Curacao	570	87,144	81,039
Delagoa Bay	.....	88,220	38,500
Demerara	.....	274,392	267,550
Desterro	.....	230,000	270,050
Dominica	.....	21,243	13,670
Dover, F. O.	.....	1,296,982	9,924,537
Dublin	.....	4,750,000	1,000,000
Dunedin	2,510	122,510	226,440
Durban	.....	.....	18,500
Dutch Guiana	.....	149,500	129,000
East London	.....	561,030	343,732
Etem	.....	2,000	2,000
Flushing, F. O.	.....	48,215,000	62,770,000
Foochow	.....	560,000	.....

Forcados		144,660	45,000
Fredericka			639,750
Fremantle		581,560	904,800
French Guiana		34,044	61,624
Gefle		398,800	
Gibraltar		173,034	133,150
Grenada		67,580	62,850
Greytown		90,676	95,200
Guadaloupe		102,123	232,200
Guanta		6,450	9,400
Guanoco			1,028
Guayaquil		139,000	150,900
Hakodate		1,877,500	
Halifax		309,270	20,750
Hamburg	1,500,000	4,600,000	3,021,500
Havre		3,700	750
Hayti		352,350	364,069
Hernosand			274,600
Hiogo		2,444,100	1,383,170
Hodeidah		180,000	70,000
Hong Kong		8,750,300	9,242,770
Honolulu		50,000	
Hull		1,212,800	1,200,550
Iquique		4,200	2,000
Iquitos		24,510	500
Jamaica	1,600	528,490	483,553
Kjoge		138,282	
Lagos		100,000	
La Guayra		266,144	302,070
La Romana		65,000	
Las Palmas		599,250	220,000
Lisbon	60,000	802,431	500
Liverpool		3,150,000	4,801,386
Livingston			1,500
London		19,948,479	19,707,754
Luela			197,479
Lyttleton	38,400	162,400	202,260
Macassar			302,750
Maceio		342,000	273,000
Madagascar			260,000
Madeira		2,000	60,000
Madras			200,000
Malta		20,000	30,000
Manaos	8,950	238,325	235,803
Manchester		1,535,400	5,467
Manila		1,274,000	641,460
Maracaibo		104,100	108,623
Maranham		198,183	89,610
Martinique		109,612	133,470
Mauritius		40,000	160,630
Melbourne		870,450	4,892,030
Mollendo		42,500	14,000
Moluccas		177,500	
Montevideo	51,000	1,900,980	1,369,288
Montserrat		150	100
Mossel Bay		41,600	50,100
Naples		2,400	290,000
Nassau		59,803	65,362
Nassau, N. P.		14,091	1,832
Newcastle		33,800	9,000
Old Calabar		45,070	112,000
Oporto	248,864	631,864	543,600
Oran		20,000	
Padang		1,517,460	
Palemburg			335,000
Para	22,980	854,330	821,194
Parahyba		114,000	
Pascasmayo		12,000	4,100
Patras			6,250
Payta		3,000	10,500
Pernambuco	60,300	1,595,980	1,237,330
Phillipville			80,000
Pimental		2,000	9,000
Pisaqua		2,000	
Pisco			32,000
Port Chalmers		258,000	218,730
Portishead			10,000
Port Elizabeth		53,200	28,920
Port Limon	11,256	72,035	53,051
Port Louis			297,660
Port Natal		859,640	566,530
Port Said			20,000
Porto Cabello		141,260	289,570
Porto Rico		2,000	391,494
Progreso		4,600	1,800
Puerto Cortez		10,710	9,450
Punta Arenas		36,500	40,000
Rangoon			1,045,000
Reunion		676,250	
Rio G. do Sul		1,011,080	546,390
Rio Janeiro		2,682,680	1,487,271
Rosario	307,200	625,200	1,700,348
Rotterdam		18,162,700	22,906,000
Saigon			1,007,940
Salaverry		25,000	28,000
Salt Pond, WCA		10,000	
Samarang			1,108,330
San Andreas		42,729	5,413
San Domingo		236,684	247,896
San Fernando		39,380	33,700
Santos		1,903,130	1,585,250
Savanilla	2,000	158,916	21,152
Shanghai		25,689,040	21,870,090
Sierra Leone		200	18,000
St. Andrews		1,500	
St. Croix		19,276	30,705
St. John, N. B.		643,579	
St. John's, N. F.	12,934	240,830	274,510
St. Kitts		72,450	56,500
St. Lucia		31,300	35,984
St. Martin's		4,100	5,100
St. Thomas		16,130	22,040
St. Vincent		76,758	16,500
Sourabaya		2,040,050	1,998,540
Southampton		1,178,126	2,000
South Shields		1,270,000	
Stockholm		239,700	
Sunderland		2,820,000	
Sundsval		410,500	765,408
Sydney		983,200	3,495,398
Talcahuano		677,750	1,081,100
Tampico		1,000	500
Trieste			6,000
Trinidad		283,040	275,240
Truxillo		8,200	6,300
Tsintau		650,000	622,030
Tuborg		49,215	114,500
Turks Island		7,863	5,570
Valparaiso		2,003,500	1,623,250
Vera Cruz	2,000	4,200	4,500
Victoria	83,700	163,700	
Wellington	57,600	415,600	782,550
Yokohama		13,154,170	10,173,810
Zanzibar		273,210	209,000
Totals		5,673,667	251,464,222	262,955,875

Crude.

Brisbane			10,000
C. Bolivar		769	1,129
Cuba			200
Havana		100,000	1,493,220
Hayti			50,000
Jamaica		158	
London		350	
Manchester			500
Porto Rico		500	
San Domingo			50,000
Totals		101,777	1,605,089

Naphtha.

Aarhuus		64,650	
Aalborg			99,250
Adelaide		3,430	6,655
Algoa Bay		4,050	130
Antofagasta		200	
Auckland	10,100	44,791	28,912
Bahia		344	195
Barbadoes		50	
Barranquilla		100	
Bermuda		10,138	11,890
Bluefields			2,387
Bocas del Toro		550	
Bombay		1,000	
Brisbane		10,750	29,235
Buenos Ayres		28,251	35,212
Callao		30	
Cape Town		11,881	4,093
Cartagena		150	
Ceara			200
Christchurch		960	
Colon		500	1,200
Coquimbo		1,000	30
Coro			10
Corrall			2,000
Cuba	57	1,334	2,584
Curacao		94	248
Delagoa Bay		600	
Demerara		2,550	
Dunedin	1,700	10,200	
Durban			30
Dutch Guiana		200	
East London		2,305	1,700
Fremantle		1,363	3,950
Fort Blaye		818,401	1,191,955
Greytown		10	
Guadaloupe		297	688
Guanaco		100	
Halifax		1,000	
Havre		454,750	478,143
Hayti		1,560	2,664
Honolulu			400
Jamaica		1,838	2,326
La Guayra		150	
Liverpool		2,300,578	1,016,345
Livingston			950
London		1,949,200	1,801,488
Lyttleton	1,570	8,728	3,849
Maceio		95	475
Malta		600	
Manila		6,100	1,000
Maracaibo			530
Maranham		10	95
Martinique		123	
Melbourne		59,576	30,640
Mollendo			50
Montevideo		1,078	945
Para		10	687
Pascasmayo		200	
Pernambuco		1,020	600
Port Chalmers		980	1,828
Portishead		243,450	429,985
Port Limon	30	484	1,009
Port Natal		4,617	134
Porto Cortez		190	
Porto Rico		640	1,610
Rio Janeiro		1,095	250
Rosario		820	2,153
Rouen		404,456	835,580
San Domingo		20	
Santos		160	2,000
Savanilla		307	70
Shanghai		3,000	1,000
Singapore			200
St. John, N. B.			1,500
St. John's, N. F.	1,297	5,613	458
Stockholm		152,550	
Sydney		69,054	49,980
Talcahuano			450
Trinidad		585	
Truxillo		760	
Tuborg		100,750	
Valparaiso		2,650	3,050
Venice		1,200	
Wellington	14,210	18,740	4,040
Yokohama		3,000	1,000
Totals	28,964	6,827,517	6,100,437

Patents Granted.

702,126.—PROCESS OF MAKING ALPHA-IONONE, Phillipe Chuit and Fritz Bachofen, Geneva, Switzerland. Filed Sept. 25, 1901. Issued June 10, 1902.

702,128.—DEVICE FOR PERFORATING WELL-CASINGS. Thomas E. Clark, Visalia, Cal. Filed June 7, 1901. Issued June 10, 1902.

702,162.—METHOD OF FORMING SPONGE SUBSTITUTES. Alexander Straus, New York, N. Y. Filed Nov. 5, 1901. Issued June 10, 1902.

702,171.—PROCESS OF MAKING PHTHALIC AND BENZOIC ACIDS. Augustus Bischler, Basle, Switzerland. Filed Aug. 9, 1901. Issued June 10, 1902.

Exports of Paraffine Wax.

In the following table are given the amounts of paraffine wax exported to each country during the month of May, and during the period of ten months, ended May 31, 1902, with comparisons, the quantities being in pounds:—

EXPORTS DURING MAY.

Exported to—	1901.	1902.
United Kingdom	4,558,170	4,750,398
France	60,185	11,160
Germany	1,572,900	1,693,834
Other Europe	1,504,902	1,796,152
British N. America	7,319	17,397
Cent. Am. & Br. H'duras	14,995	36,900
Mexico	277,469	532,945
W. Indies & Bermuda		2,837
Brazil	1,600	13,308
Other S. America	21,008	3,000
Japan	71,322	317,737
Br. Australia	540,870	1,004,221
Other Asia & Oceanica	149,525	216,320
Africa	130,836	277,849
Total, pounds	8,911,101	10,763,958

EXPORTS FOR ELEVEN MONTHS.

	1900.	1901.	1902.
U. Kingdom	103,193,924	76,462,353	93,975,719
France	451,741	830,802	897,532
Germany	25,033,938	12,611,002	21,225,831
Other Europe	28,423,598	19,179,709	30,164,249
Br. N. Amer.	43,598	71,361	74,984
Cent. Amer. & Br. Hond'ras	378,400	271,394	363,101
Mexico	4,825,258	5,529,048	4,992,341
West Indies & Bermuda	44,924	39,015	27,622
Brazil	229,896	83,086	198,567
Other S. Amer	560,980	383,841	45,858
Japan	4,825,819	2,171,677	5,114,355
B. Australasia	5,469,283	3,289,258	2,960,338
Other Asia & Oceanica	556,042	281,919	1,435,064
Africa	1,237,133	1,291,190	2,025,657
Total, lbs.	173,274,524	122,495,655	163,501,316

Parties desiring to be brought in contact with concerns who offer bargains in machinery are respectfully referred to page 27 of this issue.

If you desire to be brought in contact with the makers of machinery which enters into the manufacture of chemicals, drugs, paints. dyestuffs, fertilizers, naval stores, varnish, white lead, cotton oil, linseed oil, lubricating oil, etc., we would respectfully refer you to the Machinery Department of this publication, which you will find on page 23. Any special information that may be desired will be gladly furnished upon application, for we are in a position to place prospective purchasers in direct communication with the manufacturers of machinery of all kinds.

The Freedom Oil Works Co.
High Grade COLD TEST BLACK OILS
GAS and FUEL OILS
FREEDOM, PA., U. S. A.

TIDE WATER OIL COMPANY
MANUFACTURERS OF
PARAFFINE OILS, CYLINDER STOCKS, BLACK OILS and *ICE MACHINE OIL;*
a low cold test Paraffine Oil, specially adapted for use in *REFRIGERATING MACHINES.*
ALSO
Refined Paraffine Wax of a Superior Quality
Our wax is strictly neutral, perfectly pure, free from taste and odor, is acid proof and water proof, and is the best Paraffine Wax manufactured. ONE POUND CAKES A SPECIALTY.
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STANDARD OIL COMPANY
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LUBRICATING AND ILLUMINATING OILS, PETROLATUM, GAS AND FUEL OILS

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Spirits Turpentine. Refined and Lubricating Oil

AXLE AND RAILROAD GREASES

Our Specialties

Red Crown Stove Gasoline. **Fire Proof Oil.** **Mica Axle Grease.**

Agencies and depots at all the principal points in the South

Main Office, LOUISVILLE, KY.

PRATT'S PATENT

PREPARED GASOLEN

Adapted to all kinds of Gas Machines. **86°, 88° and 90° Gravities.**

Pratt's Deodorized Stove Gasolene For use in Vapor Stoves. Made in accordance with the recommendations of the Vapor Stove Manufacturers and guaranteed not to smoke, smell or gum the burner.

Redistilled Naphthas Also Fuel Oil, Lima Crude, Distillates, &c.; prepared especially for Gas Companies and obtainable either in barrel or tank car.

Boulevard Gas Fluid For use in Vapor Street Lamps, Plumbers' Torches, &c.

Double-Distilled Deodorized Benzine and Naphtha of all grades and gravities from 62° to 76°, for manufacturing varnishes and mixed paints, rubber and gossamer goods, floor and table oil cloths, as well as for general use of druggists, dyers, cleaners, etc., etc.

The above goods can be had in quantities to suit the purchaser everywhere in the East, either through our agents or from us direct.

Standard Oil Co., Pratt Works,

Proprietors "Pratt's Astral Oil." **26 Broadway, New York**

Wholesale Prices Current.

☞Our Quotations are those of Importers and Manufacturers, for original packages and large lots. For broken lots higher prices are asked.

Oils, Etc.

Vegetable Oils.

Linseed, city, raw, in bbls....℔ gal.	.67	@68
Boiled, in bbls.	.69	@70
Out of town, on spot	.66	@—
Calcutta, raw, in bbls	.88	@—
Varnish oil, American	—	@—
Calcutta	—	@—
Cottonseed, crude, prime	—	@—
" " f. o. b. mills	.32	@34
Crude, off quality	—	@—
Yellow summer, prime	.44½	@45
Yellow summer, butter	.49	@50
Yellow summer, off q'lity	.43	@44
White summer	.49	@—
Yellow winter	.49	@51
White winter	.50	@52
Soap stock ℔ lb.	1½	@1¾
Olive ℔ gal.	.52	@54
Olive soap stock	5½	@5¼
Palm, red	5½	@5½
Lagos	5½	@5¾
Castor No. 3	.11	@12
Cocoanut, Ceylon	7¼	@7½
Cochin	8¼	@8½
Corn	.6.30	@6.40
Mustard	.52	@53
Peanut, white	7	@7¼
yellow	6¾	@—
Rosin, first run ℔ gal.	.13	@14
second run	.15	@16
third run	.17	@18
fourth run	.19	@20
Rapeseed in bbls., burning	.71	@72
blown	.68	@69
refined	.68	@69

Animal and Fish Oils.

Black fish, crude ℔ gal.	.35	@40
Bleached winter	.48	@49
Cod, domestic, prime	.33	@34
Newfoundland	.36	@40
Degras, French, per lb	5	@5¼
English	3¾	@3¾
German	3¼	@3½
Herring ℔ gal.	—	@—
Lard, prime	.81	@84
Extra No. 1	.65	@68
No. 1	.58	@62
No. 2	.52	@56
Menhaden, prime, crude	—	@—
Southern, prime	.28	@29
Brown, strained	.31	@32
Light, strained	.32	@33
Bleached, winter	.34	@35
Ex. bleached winter white	.36	@37
Neatsfoot, white	.65	@68
Prime	.60	@65
Dark	.50	@52
20 deg. cold test	.87	@89
30 deg. cold test	.75	@80
Red, Elaine	—	@42
Saponified ℔ lb.	6½	@7
Sea elephant, bleached, winter ℔ gal.	—	@50
Natural winter	—	@46
Seal, bleached, refined		
Sod, American	.28	@29
English	.34	@35
Sperm, crude	—	@—
Natural spring	.71	@73
Natural winter	.75	@77
Bleached spring	.74	@76
Bleached winter	.78	@80
Tallow, prime	.65	@66
Acidless	.70	@75
Dark	.55	@60
Whale, crude	—	@—
Natural winter	.46	@47
Natural spring	—	@—
Bleached spring	—	@—
Bleached winter	.48	@49
Extra bleached winter		—@50

Mineral Oils.

Black reduced, 20 gravity, 20@30 c. t.	9¾	@10¼
29 gravity, 15 cold test	10¾	@11¼
29 gravity, zero	11¾	@12¾
Summer	9¼	@9¾
Cylinder, light filtered	14¾	@17¾
Dark filtered	11¼	@15¾
Extra cold test	21¾	@26¾
Dark steam refined	8¾	@10¾
Natural, Franklin, 32 gravity	10¾	@15¾
Smith's Ferry, 32@34 gravity	8¼	@9¼
West Virginia, 29 gravity	22¾	@24¾
Neutral filtered lemon, 33@34 gravity	12¾	@19¼
White, 33@34 gravity	21¾	@23¾
33@34 gray, bloomless	13¾	@18¾
33 gray, wool grade	11¾	@14¾
Paraffine, high viscosity	.17	@24
906-907 sp. gr.	12¾	@12¾
908 sp. gr.	11¼	@11¾
883 sp. gr.	9½	@10
875 sp. gr.	9¼	@9¾
865 sp. gr.	9¼	@9¾
Red paraffine, No. 1	12¾	@12¾
No. 2	11¼	@11¾
Spindle No. 1, filtered	15¾	@16¾
No. 1	12¾	@13¾
No. 2	11¾	@12¾
No. 3	¾	@11¾
No. 4	10¼	@10¾

Oil Cake, Meal, Etc.

Calcutta cake, city ℔ ton	.30.00	@—
City, domestic	.27.50	@—
Western, in bags	.27.00	@—
Cottonseed cake at Memphis	.23.25	@23.50
at New Orleans	.26.50	@—
at Boston	.30.00	@—
Cottonseed meal at Memphis	.23.25	@23.50
at New Orleans	.25.50	@—
Corn cake	—	@—
meal	—	@—

Wax, Lard, Tallow, Etc.

Paraffine wax, crude, per lb	4¾	@5
refined. 120 m. p.	—	@5½
125 m. p.	—	@6½
130 m. p.	—	@7½
135 m. p.	—	@8
140 m. p.	.13	@13½
Candles, adamantine, cs, 16 oz. ℔ lb.	10¼	@11
14 oz.	.11	@11½
paraffine, 4s. and 6s	9¼	@10½
12s, 16 oz.	10½	@11½
14 oz.	.11	@12
12 oz.	—	@—
patent sperm, 4s. and 6s	.38	@40
sperm, 4s. and 6s	.33	@34
Stearic acid—		
plain 4s., 6s. and 8s	11½	@12
patent ends, 4s and 6s	12½	@13
cartons, 6 lbs. each	13¼	@14
Lard, spot, tierces	10.30	@—
Export, pkgs	10.60	@—
compounds	8¼	@8¼
neutral	11¾	@12
Oleo, stearine	13¼	@13⅝
Lard, stearnie	.12	@12¼
Tallow	6⅜	@6⅝
Stearic acid	.11	@11¼

Naval Stores.

Spirits turpentine, spot ℔ gal.	.47	@.47½
Rosin strained	1.55	@—
Good strained	1.57½	@—
D	1.60	@—
E	1.65	@—
F	1.70	@1.75
G	—	@1.75
H	1.85	@1.90
I	2.35	@—
K	2.90	@3.00
M	3.35	@3.40
N	3.70	@—
Window glass	—	@4.00
W. W.	4.10	@4.15
Tar, ordinary	1.85	@1.90
oil, barrels	4.25	@4.35
Pitch	1.70	@1.80

Paints, Varnishes, Etc.

White Lead, Zincs, Etc.

White lead, American dry ℔ lb.	4½	@4¾
In oil	5½	@6
English in oil	7¼	@9¾
Litharge, American powdered	4¾	@5¼
English flake	8¼	@8½
Glassmakers'	7½	@8½
Red lead, foreign	6¾	@8¼
American	5¾	@6
Orange mineral, American	7¾	@8
English	8½	@10½
French	11¾	@—
German	8¼	@10½
China white	9½	@10
Flake white	8	@9
Cremnitz white	.13	@17
Zinc white, Paris G. S., 50 bbls.	9⅞ less 4	℔ ct
G. S., 25 bbls.	9⅞	2 ℔ ct
G. S., 10 bbls.	9⅞	1 ℔ ct
R. S., 50 bbls.	8¾	4 ℔ ct
R. S., 25 bbls.	8¾	2 ℔ ct
R. S., 10 bbls.	8¼	1 ℔ ct
Antwerp R. S., 50 bbls.	6¼	4 ℔ ct
R. S., 25 bbls.	6½	2 ℔ ct
R. S., 10 bbls.	6¼	1 ℔ ct
G. S., 50 bbls.	8¾	4 ℔ ct
G. S., 25 bbls.	8¾	2 ℔ ct
G. S., 10 bbls.	8¾	1 ℔ ct
G. S. in poppy oil	.12	@12½
R. S. in poppy oil	10¾	@11½
American, extra dry	4¾	@4¾
Florence, Green Seal	6¼	@—
Florence, Red Seal	5¾	@—
German	5¼	@6

Dry Colors.

REDS.

Carmine, No. 40 ℔ lb.	2.05	@2.75
Crocus martus, imported	2½	@3½
standard American	1	@2½
Indian red, standard American	3	@3¼
English	4½	@8½
Rose pink, American	8	@10½
English	8½	@10
Tuscan red, English	7	@10
Turkey red, English	4	@6
Venetian red, English, extra, ℔ 100 lbs.	1.80	@2
prime	1.15	@1.75
American	.50	@1.50
Vermilion, imported English, ℔ lb.	.80	@95
American quicksilver, bulk	—	@70
bags	—	@71
Chinese	1.05	@1.20
American	.10	@40

BLACKS.

Bone ℔ lb.	2½	@4
Carbon	5	@8
High grade	.15	@20
Drop, American	4	@7
English	7	@11
Ivory	.12	@21
Lamp, commercial	4½	@6
refined	7	@12
calcined	.10	@20
fine spirit	.20	@35

BLUES.

Celestial ℔ lb.	4	@6
Chinese	.30	@35
Prussian	.28	@34
Prussian, foreign	.32	@36
Refiners'	.60	@70
Soluble	.30	@35
Ultramarine	4	@20
Verditer	.25	@30

BROWNS.

Sienna, Italian, burnt and powdered. ℔ lb.	3½	@7½
burnt lump	1¼	@3
raw, powdered	3½	@7½
raw, lump	1¼	@3
American burnt and powd'd.	1½	@2
raw	1½	@2
Spanish brown	½	@1
Umber, Turkey, burnt and powdered.	2½	@3½
burnt lumps	3½	@4
raw and powdered	2½	@3½
raw, lumps	2½	@3
American burnt	1½	@2
raw	1½	@2
Vandyke brown, German	2¾	@3½
American	1¾	@2½

GREENS.

Chrome, chemically pure, per lb.	.19	@20
extra	.12	@15
super	7	@10
common	5	@6½
Paris, pure	12½	@15
in pulp	.14	@—
Verdigris, French	.23	@25

YELLOWS.

Chrome ℔ lb.	10¼	@25
Ocher	1¼	@2
Dutch (washed)	4¾	@5
French do	1¾	@1¾
golden	3½	@4½
domestic ℔ ton.	$10.00	@15.00

Miscellaneous.

Barytes, prime white ℔ ton.	17.00	@20.00
foreign floated	19.00	@21.00
domestic floated	19.00	@20.00
off color	14.50	@17.00
crude, No. 1	9.00	@10.00
No. 2	8.00	@8.25
No. 3	7.75	@8.00
Blanc fixe ℔ lb.	2¼	@2¾
Bronze powder	55	@2.50
Brocades	55	@1.50
Chalk ℔ ton.	2.50	@2.60
Clay, China, imported	12.00	@17.50
domestic	8.50	@10.00
Coal tar	3.50	@4.00
Cobalt, oxide ℔ lb.	2.26	@2.50
Feldspar ℔ ton.	12.50	@16.00
Fuller's earth, lump ℔ 100 lbs.	75	@80
powdered	75	@80
Lithopone	5	@5½
Marble flour ℔ ton.	7.00	@8.00
Manganese, car lots ℔ ton.	22.00	@60.00
jobbing ℔ lb.	3	@6
Magnesite, raw ℔ ton.	7.00	@8.00
calcined, pow'd. ℔ lb.	—	@1¾
Plaster ℔ bbl.	—	@1.75
dentists'	—	@2.00
Pumice stone, orig'l cks ℔ lb.	1¾	@2
selected lumps in bbls.	4½	@6
po'd pure, bbls. ℔ 100 lbs	1¾	@1¾
Putty, in bulk	2¼	@—
12½ to 25-lb. tins	2¼	@—
1 to 5-lb. tons	3¼	@—
bladders	2¼	@—
Rottenstone, casks ℔ lb.	6	@7½
selected lumps	6	@20
powdered, in bbls.	3	@4
Silex ℔ ton.	12.00	@18.00
Smalt, German blue ℔ lb.	6	@10
super. black	4	@7
Talc, American ℔ 100 lbs.	90	@1.10
French	1¼	@1½
Italian	1½	@6
Terra alba, American No. 1	65	@85
No. 2	45	@50
English	95	@1.00
French	95	@1.00
Whiting, commercial	40	@60
gilders'	45½	@65
extra gilders'	55	@68
American, Paris	66	@75
English cliffstone	90	@1.10

Glues.

Extra white ℔ lb.	18	@23
Medium white	14½	@16½
Cabinet	11½	@16
Low grade	9	@12
Foot stock, white	10	@12½
brown	7½	@10
Common bone	6½	@8
Irish	13¼	@16
French	12	@40
German hides	12½	@16
common	10	@12½

Varnish Gums.

Asphaltum, Barbadoes, per lb.	2½	@4
Cuban, prime	4½	@—
Egyptian	5¾	@6½
Copal, Sierra Leone, cleaned	.60	@75
Zanzibar, bold white	.60	@70
medium white	.50	@60
sorts	.46	@50
bean and pea	.32	@33
Manila, pale	14½	@16
dark hard	.13	@14
bright amber	10½	@14
standard sorts	9	@10
nubs, No. 1	6½	@7
No. 2	6	@6½
chips, No. 1	5½	@6
No. 2	5	@5½
Damar, Batavia	12½	@13½
Singapore	8	@9
Kauri, standard	.27	@31
No. 2	17½	@19
No. 3	.11	@13
Chips	.16	@23
Dust	6	@10
B. 1	.18	@19
B. 2	.10	@12
Brown chips	6	@15
Brown dust	4	@5
Single cross	.33	@35
Double cross	.40	@45
Triple cross	.43	@48
Picture quality	.65	@75
Pale and fine selected	.50	@55
Sandarac	.14	@18

Window Glass.

AMERICAN WINDOW GLASS.

SINGLE.

	AA	A	B	C
25 inch	32.00	26.75	25.50	24.00
34 "	33.50	28.00	26.75	25.50
40 "	36.00	30.00	28.00	26.50
50 "	37.50	31.75	29.50	....
54 "	38.75	32.75	30.00	....
60 "	40.00	34.75	31.00	....
70 "	42.75	38.50	33.75	....
80 "	48.75	44.50	38.50	....
84 "	52.00	47.50	41.75	....

DOUBLE.

	AA	A	B
25 inch	42.75	37.50	35.50
34 "	46.75	41.50	38.75
40 "	52.00	45.50	41.50
50 "	56.00	49.50	46.00
54 "	57.50	50.75	46.75
60 "	58.75	52.00	47.50
70 "	62.75	56.00	50.75
80 "	68.00	61.50	55.50
84 "	69.50	62.75	56.75
90 "	73.50	66.75	61.50
94 "	74.75	68.00	62.75
100 "	88.00	80.00	74.75

An additional 10 per cent. will be charged for all glass more than 40 inches wide. All sizes over 52 inches in length, and not making more than 81 united inches, will be charged in the 84 united inches bracket. All glass 84 inches wide or wider, not making more than 116 united inches, will be charged in the 120 united inches bracket.

Discounts—Car lots, 89 and 5 per cent. f. o. b. factory; 88 and 5 per cent. from jobbers' stock in less than carload lots.

Metallic Paints.

Brown ℔ ton.	19 00	@21 00
Red	16 50	@20 00

Colors in Oil.

Black coach Japan ℔ lb.	.20	@35
in oil	.14	@18
drop	.14	@18
lampblack	.12	@14
Blue, Chinese	.36	@40
Prussian	.32	@36
ultramarine	.13	@16
Brown, sienna, burnt	.10	@13
raw	.10	@13
Umber, burnt	9½	@12
raw	9½	@12
Vandyke, brown	9½	@13
Green, chrome	.10	@12
Paris	—	@24
Red, Indian	.11	@14
Venetian	6	@8
Yellow, chrome	.14	@18
ocher, French	6	@8

Drugs.

Opium.

Opium, natural (cases) ℔ lb.	2.80	@2.82½
as wanted	2.82½	@2.85
powdered	3.60	@3.70

Morphine.

Morphine, bulk ℔ oz.	1.90	@2.00
oz. vials	1.95	@2.05
⅛ oz. vials, 2½ oz. bxs	2.25	@2.30

Codeine.

Codeine, pure, bulk, 10 oz. ℔ oz.	3.40	@3.60
ozs.	3.45	@3.65
eighths	3.65	@4.05

Precipitated, 10c.; sulphate, nitrate and muriate, 45c., and phosphate, 60c. per oz. less than pure.

Quinine.

Quinine, 100 oz. tins ℔ oz.	—	@25
50 oz. tins	—	@25½
25 oz. tins	—	@26
5 oz. tins	—	@27
1 oz. tins	—	@30
German, outside	24	@24½
Java	23	@24
Cinchonidia, bulk	22	@24

Miscellaneous.

Acetanilid, in bbls ℔ lb.	20	@21
Acid, benzoic, true ℔ oz.	7½	@8
ex toluol ℔ lb.	34½	@37
boracic, crystals, city	10¾	@11¾
powdered, city	11¾	@11¾
carbolic, drums	15	@17
bottles	21	@22½
citric, domestic, barrels	—	@33
kegs	—	@33½
Sicilian	32½	@33
pyrogallic, 100 lbs., bulk	1.70	@1.80
10 lbs., bulk	2.00	@2.20
pounds	2.25	@2.45
salicylic	33	@35
Alcohol, 94 per cent. ℔ gal.	2.41	@2.51
ref. wood, 95 per cent.	—	@65
97 per cent.	—	@70
purified	1.20	@1.50
Aloin	35	@40
Ambergris, black ℔ oz.	15.00	@20.00
gray	27.50	@30.00
Ammonia, carb., domestic ℔ lb	8½	@8¾
foreign	9	@9¼
Antimony, needle	7	@8
Areca nuts	8	@10
Balm of Gilead buds	32	@35
Barium, chloride	1.67½	@1.76
chlorate	—	@28
nitrate	6	@6¼
Barbadoes tar, in bbls ℔ gal.	32	@40
Bayberry wax	20	@24
Bay rum, bbls	1.85	@2.25
Beeswax, white, pure, per lb	38	@50
yellow	31½	@33
Bismuth, citrate	1.75	@1.80
subcarbonate	1.65	@1.70
subgallate	1.55	@1.60
subnitrate	1.40	@1.45
Blue pill	41	@42
Borax, in bbls	7½	@7¾
in bags	7¼	@7½
powdered	7½	@8
Bromine, bulk	48	@53
Burgundy pitch	2½	@3
Caffeine	3.25	@3.50
Calomel, American	86	@88
English	—	@90
Cantharides, Chinese	42½	@45
powdered	47½	@50
Russian	62	@65
powdered	63	@65
Carnauba wax, No. 1	17½	@22
No. 2	15	@17
No. 3	12½	@15
Carbon, bisulphide	9	@10
Castor oil, city, bbls	10¾	@12½
cases	11¼	@13
Castile soap, white, pure	10½	@11
Marseilles	6½	@7
green, pure	8	@10
ordinary	6	@6½
mottled, pure	6¾	@8
ordinary	5½	@6
Ceresin, yellow	13	@15
white	14	@17
Chalk, precip	4	@6
Chlo. hydrate, crusts, 28-lb jar	85	@90
crystals	90	@95
100 lbs., 5c. less.		
Chloroform	45	@55
Civet	1.85	@2.00
Clover tops	5½	@10
Cocaine, muri, bulk, per oz	3.75	@3.95
Cocoa butter, 12-lb. bxs., per bx.	37	@38
bulk	32	@32½
Codliver oil, Newf'dland ℔ gal.	50	@60
Norwegian ℔ bbl.	38.00	@43.00
Colocynth apples, Spanish ℔ lb.	15	@17
Trieste	38	@45

Cologne, spirit, 190° ℔ proof gal.	1.33	@	1.34
Corrosive sublimate.....℔ lb.	77	@	79
Coumarin, refined	4.40	@	5.50
Creosote, beechwood	90	@	1.00
Cuttlefish, Trieste	20	@	23
Jewelers', small	43	@	45
Jewelers', large.....	75	@	80
Dragon's blood, mass.....	15	@	20
reeds	50	@	60
Epsom salts, per 100 lbs.....	1.00	@	1.25
Ergot, Russian	39	@	42
Spanish	40	@	44
Ether, 1880	62	@	65
washed	66	@	68
1890	68	@	70
Eucalyptol	1.25	@	1.35
Formaldehyde	15	@	16
Fusel oil, per gal.....	70	@	75
Gelatine silver, per lb.....	25	@	27
Gold	33	@	45
Glucose, 42 dgs.....	2.22	@	2.32
Glycerine, C. P., bulk.....	14½	@	15
drums and bbls. added.			
C. P., cans.....	15½	@	16
Dynamite	13	@	13½
Grains of Paradise	18	@	20
Grape sugar, 10 deg., per 100 lbs	—	@	1.50
Guarana, per lb.....	75	@	80
Haarlem oil	1.95	@	2.00
Hypophosphite, lime	52½	@	55
potash	52½	@	55
soda	52½	@	55
Iceland moss .....℔ lb.	5	@	6
Insect powder	14	@	26
Iodine, re-sublimed	2.70	@	2.75
Iodoform	3.00	@	3.05
Irish moss, ordinary	4½	@	8
bleached	9	@	14
Isinglass, Russian	4.10	@	4.20
American	70	@	75
Japanese	50	@	55
Japan wax	9	@	9¼
Kola nuts, African.....	6½	@	7½
Licorice, mass, Greek.....	8	@	12
Spanish	17	@	24
stick, domestic	16½	@	23½
foreign	25	@	28
Lithia, carb.	1.35	@	1.50
Lupulin	25	@	28
Lycopodium	52	@	55
Manna, large flake.....	60	@	80
small flake	50	@	52
sorts	—	@	—
Menthol	4.25	@	4.50
Myrbane oil	7¼	@	9
Musk, pods, Cab .....℔ oz.	5.00	@	6.00
Tonquin	8.50	@	16.00
grain, Cab	9.00	@	10.00
Canton, extra.....	—	@	1.00
Canton, good	15	@	17
Tonquin 15.00	@	21.00	
Druggists' 14.00	@	14.50	
Naphthaline, balls.....℔ lb.	2½	@	2¾
flakes	2¾	@	3
Nitrate silver, crystals.....℔ oz.	36	@	37½
Nux vomica .....℔ lb.	2½	@	2¾
Petrolatum, bbls., amber.....	3	@	3½
pale yellow...	4	@	4½
lily white....	10	@	10½
snow white...	12	@	14
Phosphorus	45	@	1.10
Pilocarpine .....℔ oz.	—	@	15.00
Poppy heads .....℔ lb.	14	@	18
Precipitate, red	96	@	98
white	1.01	@	1.03
Potash, permanganate	9½	@	10½
Potassium, bromide, bulk.....	46	@	47
cyanide, bulk.....	25	@	26
iodide, bulk	2.05	@	2.10
Quicksilver	64½	@	65
Resorcin	1.50	@	1.60
Rochelle salts	16	@	17
Salicine, bulk	3.75	@	3.85
Salol, bulk, 5 lbs. or over.....	—	@	1.20
1 lb. bots.....	—	@	1.30
½ lb. bots.....	—	@	1.35
¼ lb. bots.....	—	@	1.45
In lots of 25 lbs., 5c. less; 100 lbs., 10c. less.			
Santonine, crystals, 25 lbs.....	5.75	@	5.80
Less.....	5.80	@	5.85
powdered, 10c. per lb. advance.			
Seidlitz mixture	13	@	14
Sesame oil, per gal.....	68	@	75
Soda, benzoate	35	@	37
salicylate	36	@	38
Spermaceti, block, per lb.....	23	@	24
cakes	24½	@	25
St. John's bread	—	@	5
Strontia, nitrate	8	@	8¼
Strychnine, crystals, bulk..℔ oz.	55	@	80
Sugar of milk, cob	16	@	17
powdered	13	@	14
Sulphur, roll	1.85	@	2.15
flour	1.95	@	2.20
Tamarinds .....℔ keg	2.05	@	2.25
Thymol .....℔ lb.	2.25	@	2.30
Vanillin .....℔ oz.	65	@	1.00
Venice turpentine, per lb.....	17	@	18
Zinc, chloride, gran.....	5	@	5½
sulphate	2¼	@	2¾

Balsams.

Copaiba, Central American,℔ lb.	36	@	40
Para	45	@	50
solidifiable	45	@	47½
Fir, Canada .....℔ gal.	3.50	@	3.60
Oregon	70	@	75
Gurjun .....℔ lb.	12½	@	15
Peru	1.20	@	1.30
Tolu	26	@	29

Barks.

Angostura .....Per lb.	24	@	30
Bayberry	4½	@	5
Black haw, of root, true.....	9	@	10
of tree	7	@	9
Buckthorn	4½	@	5
Cascara sagrada	5	@	7
Cascarilla quills	8½	@	12
ordinary	8½	@	10
Canella	15	@	16
Cinchona—red, quills	20	@	25
broken	10	@	20
Yellow, quills	22	@	30
broken	15	@	20
Condurango	15	@	16
Cota	12	@	15
Cramp	5	@	6
Logwood, Jamaica	5½	@	6½
Elm	—	@	15
Mezereon	8	@	10
Oak, red	2	@	4
white	3	@	—
Orange peel, bitter, Curacoa, ¼s	3	@	4
sweet, Malaga, pieces	7	@	10
quarters	9½	@	10
sweet, Trieste.....	4¾	@	5¼
Prickly ash	8	@	10
Pomegranate, of fruit	9	@	11
of root	12	@	13
Quebracho	10	@	10½
Sassafras	7	@	10
Simarubra	23	@	25
Soap, whole	3½	@	4
crushed	5	@	6
Wahoo, of root	18	@	20
of tree	14	@	15
White Pine	—	@	4
White Poplar	3½	@	4
Wild Cherry	5	@	7½
Witch Hazel	3½	@	4

Beans.

Calabar .....℔ lb.	20	@	25
St. Ignatius	12	@	16
Tonka, Angostura	70	@	75
Para	27½	@	30
Surinam	50	@	55
Vanilla, Mexican, whole	6.75	@	12.00
cuts.....	3.25	@	4.00
Bourbon, whole	2.50	@	6.75
Tahiti, whole.....	1.00	@	1.50
Vanillons	1.10	@	1.25

Berries.

Cubeb, whole .....℔ lb.	9½	@	10
powdered	13	@	16
Fish (Cocculus Indicus)	3	@	3½
Juniper	3½	@	3½
Laurel	3½	@	4
Prickly ash	40	@	45
Saw Palmetto	—	@	8

Essential Oils.

Almond, bitter .....℔ lb.	3.75	@	5.85
artificial	75	@	1.50
sweet, true	40	@	50
Peach kernel	15	@	25
Amber, crude	13	@	15
rectified	22	@	23
Anise	1.10	@	1.25
Bay	2.75	@	3.00
Bergamot	1.95	@	2.10
Birch Tar, crude	14	@	15
extra	20	@	25
Cade	14	@	17
Cajeput	45	@	55
Camphor	8	@	10
Caraway seed	1.10	@	1.35
Cassia	60	@	65
Cedar, leaf	65	@	70
wood	21	@	23
Cinnamon, Ceylon, heavy.....	8.00	@	10.00
Citronella	19½	@	23
Cloves, cans	57½	@	62½
bottles	60	@	65
Copaiba	75	@	85
Coriander	5.50	@	11.09
Croton	90	@	1.10
Cubeb	1.00	@	1.10
Cummin	3.00	@	3.50
Erigeron	55	@	80
Eucalyptus, American	34	@	45
Australian	40	@	60
Fennel seed, sweet.....	60	@	1.25
bitter	45	@	1.00
Geranium rose, African	5.25	@	6.50
Turkish	2.50	@	4.50
French	7.50	@	12.00
Ginger	3.75	@	6.00
Gingergrass	1.50	@	1.75
Hemlock	45	@	50
Juniper berries—rectified	55	@	1.00
twice rectified..	1.10	@	1.40
wood	25	@	35
Lavender, cultivated	1.50	@	1.75
flowers	1.20	@	1.30
aspic, pure	70	@	90
spike	60	@	75
garden	40	@	50
Lemon	65	@	80
Lemongrass	1.85	@	2.10
Limes, expressed	1.60	@	1.80
distilled	60	@	1.00
Linaloe	1.50	@	1.75
Mace, distilled	1.00	@	1.10
expressed	90	@	95
Malefern	—	@	1.75
Mustard, natural	4.50	@	5.50
artificial	2.25	@	2.75
Neroli, petale	32.50	@	40.00
bigarade	26.00	@	35.00
Nutmeg	90	@	1.10
Orange, bitter	2.00	@	2.25
sweet	1.20	@	1.45
Origanum	18	@	22
Patchouly, leaf	3.90	@	5.50
cultivated	—	@	6.00
Pennyroyal	1.35	@	1.40
Peppermint, tins	1.70	@	1.85
bottles	1.95	@	2.10
Petit grains, French	4.00	@	6.00
South America....	2.50	@	2.80
Pimento	1.75	@	2.50
Rhodium	2.00	@	7.00
Rose, per oz.....	4.30	@	4.75
Rosemary flowers, French..℔ lb.	75	@	1.00
Trieste	40	@	50
Sandalwood, East India	3.40	@	3.75
West India	1.70	@	2.00
Australia	2.75	@	3.00
Sassafras, natural	39	@	40
artificial	29	@	31
Safrol	33	@	35
Savine	65	@	1.50
Spearmint	1.45	@	1.75
Spruce	45	@	50
Tansy	90	@	95
Thyme, red, French	96	@	1.00
white, French	95	@	1.10
Wintergreen, nat'l (sweet birch).	1.50	@	1.70
synthetic	47½	@	55
leaf	2.00	@	2.50
Wormseed—Baltimore	1.10	@	1.25
Wormwood, pure	6.00	@	6.50
Ylang ylang 40.00	@	70.00	

Flowers.

Arnica .....℔ lb.	9	@	9½
Calendula, foreign	31	@	35
Chamomile, Roman.....	15	@	20
German, true.....	17	@	23
Hungarian	12	@	15
Elder	9	@	11
Insect	18	@	25
Lavender, ordinary	4	@	5
select	7	@	8
Poppy, red	—	@	35
Rosemary	15	@	16
Saffron, American	12	@	13
Alicante	5.00	@	6.00
Valencia	5.75	@	6.00

Gums.

Aloes, Curacao, in boxes...℔ lb.	3	@	4
Cape	8	@	10
Socotrine	20	@	25
Ammoniac	20	@	—
Arabics, firsts	34	@	40
seconds	21	@	27
thirds	17	@	20
fourths	14	@	18
sorts	8½	@	10
Asafoetida	16	@	25
Benzoin, Siam	50	@	80
Sumatra	27	@	35
Camphor, American, barrels....	—	@	57
cases.....	—	@	57½
Chicle	32	@	35
Euphorbium	—	@	15
Galbanum	70	@	75
Gamboge	62½	@	70
Gualac	20	@	30
Kino	32	@	35
Mastic	38	@	40
Myrrh	16	@	25
Olibanum, siftings	4	@	4½
sorts	6	@	7
tears	9	@	10
Sandarac	13	@	17
Scammony, rosin	—	@	2.25
Aleppo	2.75	@	2.90
Virgin	4.00	@	6.50
Senegal, picked	15	@	24
sorts	11	@	12
Spruce	1.25	@	1.75
Tragacanth, Aleppo, firsts.....	75	@	90
seconds ...	55	@	65
thirds	45	@	50
fourths ...	30	@	35
Turkey, firsts.....	75	@	90
seconds ...	50	@	60
thirds	40	@	45

Herbs and Leaves.

Aconite .....℔ lb.	9	@	10
Althea	10	@	12
Bay	14	@	15
Belladonna	11	@	13
Buchu, short	24	@	26
long	—	@	1.00
Cannabis Indica, tops.....	67½	@	70
siftings	65	@	—
Coca, Huanoco	32	@	35
Truxillo	20	@	25
Coltsfoot	7	@	9
Conium	7	@	8
Deer tongue	3	@	4
Damiana	15	@	17
Digitalis	10	@	12
Doggrass	5½	@	7
Eucalyptus	3½	@	5
Grindelia robusta	6	@	6½
Henbane (hyosciamus)	9	@	12
Horehound	5½	@	6½
Jaborandi, long	18	@	21
round	15	@	18
Laurel	2½	@	3
Lobelia	16	@	20
Matico	10	@	14
Marjoram, German	20	@	21
French	13	@	15
Pennyroyal	—	@	8½
Peppermint, American	—	@	10
German	40	@	50
Pichi, tops	13	@	16
Pulsatilla	10	@	11
Prince's pine	—	@	8
Rose, red	85	@	95
Rosemary	3½	@	4
Rue	13	@	16
Sage, Italian, picked	3½	@	4½
Savory	6½	@	6¾
Scull cap	18	@	20
Squaw vine	7	@	8
Senna, Alex, whole leaf.....	21	@	25
half leaf	12	@	20
siftings	6½	@	7
Tinnevelly	5	@	14
Stramonium	6	@	7
Thyme	5½	@	7
Uva Ursi	3½	@	5
Witch hazel	3½	@	3¾
Wormwood, foreign	6½	@	7
Yerba Santa	5	@	6

Roots.

Aconite, German .....℔ lb.	10	@	12
Alkanet	5½	@	6
Althea, whole	15	@	20
cut	23	@	25
Angelica, German	14	@	15
American	—	@	15
Arnica	10	@	14
Arrowroot, Bermuda, genuine...	35	@	40
St. Vincent, bbls....	8½	@	10
Belladonna, Atropa	10	@	11
Berberis Aquifolium	—	@	9
Bitter	—	@	16
Blood	5	@	6
Blueflag	—	@	8
Byronia	10	@	12
Burdock	5	@	6
Calamus, bleached	25	@	30
unbleached	7	@	12
Cohosh, black	3½	@	4½
blue	—	@	5
Colchicum	8½	@	9
Colombo	7	@	10
Culvers	7	@	9
Dandelion, German	6¾	@	7½
Galangal	6½	@	7½
Geisemium	5½	@	6½
Gentian	4	@	4½
Ginseng, Southern	3.75	@	5.00
Northern	5.00	@	7.00
Ginger, Jamaica, unbleached...	9¼	@	9½
bleached.....	11	@	13
Golden seal	51	@	55
Hellebore, white	6	@	6½
black	5	@	6
powdered	7	@	7½
Hydrangea	—	@	5
Ipecac, Rio.....	2.45	@	2.50
Cartagena	1.10	@	1.15
Jalap	9	@	10½
Kava Kava	11	@	12
Lady Slipper	18	@	20
Licorice, in bales	3¼	@	4
selected, bundles	7¾	@	10
Lovage, American, per lb.....	—	@	—
German	13	@	16
Mandrake	4½	@	5
Musk, Russian	15	@	18
Orris, Florentine, bold.....	9	@	11½
small.....	7½	@	10
Verona	4½	@	6
Fingers	60	@	65
Pareira brava	11	@	12
Pellitory	15	@	16
Pink	19	@	23
Pleurisy	11	@	15
Poke	3½	@	4½
Rhatany	11	@	12
Rhubarb, Canton	25	@	35
Shensi	55	@	60
high dried	12½	@	20
clippings	12½	@	30
Sarsaparilla, Honduras	28	@	33
Mexican	7	@	7¼
Senega, Southern	55	@	57
Western	47	@	52
Serpentaria	35	@	37
Skunk cabbage	7½	@	8
Snake, Canada	25	@	30
Virginia	—	@	45
Stillingia	4	@	5
Stone	4	@	5
Squills	3¾	@	4
Unicorn, false	30	@	35
true	—	@	16
Valerian, German	15	@	16
Belgian	5	@	6
English	18	@	20
Wild Yam	5½	@	6
Yellow Dock	—	@	8
Zedoary	9	@	10

Seeds.

Anise, Italian, sifted, per lb....	10	@	10½
Russian	5½	@	6
Levant	7	@	7½
star	15	@	16
Canary, Sicily	2¾	@	3
Smyrna	3¾	@	3½
Caraway, Dutch	5¼	@	5½
Cardamoms, bleached	50	@	75
decorticated	55	@	57½
Celery	7½	@	7¾
Colchicum	30	@	40
Conium	7	@	7¼
Coriander, natural	2¾	@	3
bleached	3½	@	3¾
Cummin, Malta	9½	@	10
Fennel, German	7	@	9
Italian.....	5	@	5½
Flax, per bbl.	6.75	@	—
ground, per lb.....	4	@	—
Fenugreek	2	@	2¼
Hemp, Russian	3½	@	3¼
Larkspur	50	@	60
Lobelia	—	@	1.00
Millet	1¾	@	3½
Mustard, brown, Bari.....	5	@	5¼
California	3½	@	4¼
German	2¾	@	3
Sicily	4	@	5
Trieste	7½	@	8
yellow, California.....	4	@	4¼
English	5	@	5¼
German	3	@	3½
Poppy	6¾	@	7
Pumpkin	5	@	—
Rape, English	—	@	4¾
German	3½	@	3¾
Domestic	3¼	@	3½
Sabadilla	10	@	14
Stavesacre	10½	@	11
Stramonium	—	@	9
Strophanthus, Kombe	95	@	1.00
Hispidus	45	@	50
Sunflower	3.30	@	3½
Worm, Levant	10	@	—
American	17	@	20

Shellac.

D. C., per lb.	36	@	37
Diamond I.	33	@	34
V. S. O	34	@	35
No. 2 Orange	29	@	30
. N.	26	@	27
Garnet, A. C.	26½	@	27
Button	32	@	35
Bleached	27	@	37

Spices.

Cassia, Batavia, No. 1.....℔ lb.	17½	@	18
No. 2.....	12¾	@	13
Canton, matted rolls....	6¾	@	7
broken.....	3	@	7½
Saigon, rolls.....	41	@	42
broken	31½	@	33
buds	21	@	21½
Cloves, Amboyna	10¾	@	11
Zanzibar	8¾	@	8½
Penang	13½	@	14
stems	3¾	@	3¾
Ginger, Calcutta	8	@	8¼
Cochin	9¼	@	9¾
African No. 1.....	8¾	@	8¾
Jamaica	12	@	13
Mace, Banda	40	@	41
Batavia	30	@	31
Penang	32	@	41
Nutmegs, 105's to 110's.....	19	@	19½
Pepper, black, Acheen	10½	@	11
Singapore	11¾	@	12
Tellicherry.....	12	@	12½
white, Penang.....	19	@	19¼
Singapore.....	21	@	21¼
red, Japan	14	@	14½
Zanzibar	10½	@	10¾
Pimento, No. 1.....	5¼	@	5¾
grinding	5¾	@	5½

Chemicals.

Heavy Chemicals.

Alkali, 48 per cent., Solvay.			
℔ 100 lbs.	92½	@	97½
ammonia, high test.....	75	@	90
Bleach over 35 per cent.....	1.50	@	1.90
Salt cake	82½		85
Soda, ash, carb, 48 per cent....	—	@	—
high test	95	@	—
caustic, 48 per cent.....	—	@	—
Newcastle, 48 per cent....	—	@	—
high test.....	—	@	—
Soda, bicarb., English.....	1 50	@	1 80
American.....	1 90	@	2 00

Caustic, domestic, ℔ 100 lbs.			
60 per cent.	1 95	@	2 10
70 per cent.	1 90	@	2 05
74 per cent.	1 90	@	2 25
foreign, 60 per cent.	—	@	—
70 per cent.	—	@	—
74 per cent.	—	@	—
76 per cent.	2 25	@	2 50
powdered, granulated.			
60 per cent.	2 75	@	3 00
70 per cent.	2 85	@	3⅛
74 per cent.	3 00	@	3⅛
A. C. P.	3¼@		3⅜
Sal, English	67½@		72½
American	65	@	75

Acids.

Acid, acetic ℔ 100 lbs.	1 80	@	4 00
chemically pure ℔ lb.	20	@	21
oxalic	4¾@		5
pyroligneous	9	@	10
sulphuric, 60 deg. ℔ 100 lbs	1.20	@	1.75
66 deg.	1.20	@	1.30
bulk 50 deg.	14.00	@	15.00
muriatic, 18 deg.	1.50	@	1.60
20 deg.	1.60	@	1.70
22 deg.	1.75	@	2.00
aqua fortis, 36 deg. ℔ lb.	4½@		4⅝
38 deg.	4½@		5
40 deg.	4¾@		5¼
42 deg.	5¼@		5½
nitric, 36 deg.	4¾@		4⅞
38 deg.	4¾@		5¼
40 deg.	5	@	5½
42 deg.	5⅝@		6
tartaric crystals.	28	@	28¼
powdered,	28½@		28½

Miscellaneous Chemicals.

Acetate of lime, gray ℔ 110 lbs	1 35	@	1 40
brown.	95	@	1 00
Alum, lump	1 75	@	1 80
ground	1 85	@	1 90
porous	1 85	@	1 90
Argols, plates ℔ lb.	—	@	—
red	2 20	@	2 30
Arsenic, white	3¼@		3½
red	7	@	7¼
Brimstone, crude, 2d, per ton.	22 25	@	23 50
3ds.	20.00	@	20.25
Cream tartar, crystals, p. c. ℔ lb	19	@	19¼
powdered, 90 p.c.	19	@	19¼
Chlorate of soda	8¼@		8⅝
Chloride of calcium	9.00	@	10.00
Copperas	35	@	45
Glauber salts	75	@	85
Nitrate of lead	6¼@		6⅝
soda	2.05	@	2.10
Sugar of lead, brown	6	@	6¼
white	8	@	8¾
Saltpeter, crude	3½@		3¾
refined	4½@		5¼
Sulphate, alumina	1⅝@		1½
Vitriol, blue	4¾@		5⅛

Ammoniates, Potashes, Etc.

Ashes, pot, 1st sorts. per lb.	4	@	4¼
pearl	5	@	5½
Potash, chlorate	7¾@		8¼
powdered	7¾@		8½
Carb.	3½@		4⅛
caustic	5	@	6
dbl. m're salt. 48@53%.	1 09	@	1 11½
dbl. m'ure salt. 48@53%.			
less than 25 tons.	24 00	@	30 00
sulph. of. basis 90@98 %.	2 08	@	2 14
90@98% less than 25 tons	38 00	@	40 00
Kainit, 25% P. of P. ℔ ton.	8 80	@	9 30
less than 25 tons	9 08	@	9 58
Sylvinit, 35@37% P. ℔ unit.	38	@	40
Aq. am'ia (in cbys) 16 deg. ℔ lb.	9	@	9½
18 deg.	3¼		4
20 deg.	3¾@		4⅛
26 deg.	5½@		6¼
Ammoniac, sal., gray	5⅝@		6
granulated	5⅝@		6
lump	9½@		9½
Ammonia, sulphate	3.00	@	3.10
Potash, muriate ℔ 100 lbs.	1 80	@	1 86½
less than 25 tons.	36 00	@	40 00
Nitrate of soda	2.05	@	2.10
Blood, dried, red ℔ unit.	2 35	@	2 40
low grade	—	@	—
Concentrated tankage	15 00	@	16 00
Bones, rough ℔ ton.	16 50	@	17 50
ground	20 00	@	21 00
Bone meal	16.00	@	23.00
Bone black, refuse	17.00	@	19.00
Fish, guano, dried	23 00	@	23 50
acidulated	11 00	@	11 50
Phosphate rock, f. o. b. Char'n.	9 00	@	9 25
Tenn.	3 00	@	4 75
Acid phosphate	60	@	65

Dyestuffs.

Acid, gallic ℔ lb.	57½@		60
Acid, picric, best crystals	34	@	38
tannic, commercial	34	@	40
crystals	65	@	70
Acetate of soda	4¼@		4½
Albumen, egg	45	@	60
blood	14	@	20
Alizarine, red	15½@		16¼
Aniline oil	9¼@		9½
salt, crystals	8½@		8¾
Annatto	8	@	12
fine	25	@	—
seed	—	@	5
Antimony, oxymuriate	4	@	6
salt, 65%	16	@	17
47%	13½@		15
tartar emetic	21	@	23
Bichloride of tin, 50 deg.	9	@	9½
60 deg.	11¾@		—
Bichromate of potash, American	8¼@		8½
Bichromate of soda	6¼@		6½
Bisulphate of soda	1½@		2¼
Carmine of indigo	60	@	75
Cochineal, Teneriffe, silver	16	@	17
black	19	@	20
gray black	21	@	—
Cudbear, French	12	@	18
concentrated	23	@	25
English	10	@	18
Cutch, mat.	4½@		5
refined	4¾@		5½
refined, in boxes	5	@	6¼
Dextrine, imported	5¾@		7
domestic	5¾@		6
corn	3 80	@	4½
Divi Divi ℔ ton.	30.00	@	45.00
Flavine ℔ lb.	23	@	42
Fustic stick ℔ ton.	16.00	@	24.00
young root	32.00	@	36.00
Gambier ℔ lb.	6¾@		7
Cube No 1.	10	@	10¼
No. 2.	9½@		10
Garancine	6	@	8
Hypo. of soda, Am., cks—℔ cwt.	1.60	@	1.65
kgs.	1.70	@	1.95
German, cks.	1.70	@	2.00
kgs.	1.90	@	2.30
Indigo, Bengal, low grade. ℔ lb.	60	@	65
medium	67½@		75
high grade	85	@	1.00
Kurpahs, medium to good	60	@	65
higher grade	67½@		90
Guatemala	40	@	80
Manila	43	@	45
Madras	—	@	—
J (Synthetic)	—	@	38
Indigotine	95	@	1.80
Logwood stick ℔ ton.	15 00	@	22 00
roots	16 00	@	17 50
Madder, Dutch ℔ lb.	8	@	10
French	6	@	7½
Myrabolans	2¼@		2½
Muriate of tin, 36 deg.	—	@	9
52 deg.	—	@	15
Nitrate of iron, commercial	1¼@		1⅝
true	4	@	4½
Nutgalls, blue Aleppo	14	@	15
Chinese	14	@	14½
Persian berries	6	@	6½
Prussiate of potash, yellow	14	@	14¼
red	37½@		40
Prussiate of soda	11	@	12
Phosphate of soda	2¾@		3½
Quercitron ℔ ton.	18 00	@	21 00
Sago flour ℔ 100 lbs.	3½@		3¼
Salts of tartar ℔ lb.	5½@		7
Silicate soda	1	@	1⅛
Soluble oil, 50 per cent.	6½@		7
75 per cent.	11	@	12
Starch, corn, pearl, in bbls.	2 82	@	4
in bags.	2 72	@	3½
potato	3½@		4½
rice	7½@		8
wheat	4½@		6
Stannate of soda	10	@	18
Sumac, Sicily, No. 1. ℔ ton.	44.00	@	60.00
No. 2.	41.00	@	44.00
Virginia	33 00	@	34 00
Tapioca flour ℔ lb.	2¼@		2⅝
Tin crystals	18¼@		20
Turmeric, Bengal	7	@	7⅜
Aleppo	7¼@		8
Chinese	7	@	7½
Cortings	7¼@		7⅝
Vanadiate ammonium. ℔ oz.	—	@	60
Zinc dust ℔ lb.	5	@	5½

Chipped Dyewoods, Etc.

Barwood ℔ lb.	2	@	2¼
Camwood	8	@	9
Fustic	1¾@		2
Hyperic	8	@	8¾
Logwood, Campeche	1¾@		1⅞
Red sanders	2¾@		3

Extracts.

Archil, double ℔ lb.	8	@	13
concentrated	9	@	15
Barberry, French	22	@	28
Chestnut	2½@		3
Oak	3½@		4
Hemlock	2½@		2¾
Fustic, solid	9	@	11
liquid, 51 deg.	7	@	10
Gall	13	@	17
Indigo	7	@	20
Logwood, solid	8	@	12
liquid, 51 deg.	5	@	10
42 deg.	4	@	6
crystals	15	@	25
Quebracho, solid	4¾@		5½
51 deg.	3¼@		5
42 deg.	3	@	4
Quercitron	8	@	3¼
Persian berry	8½@		12
Sumac	3¼@		7

Comparative Prices.

On July 7, 1899, 1900 and 1901.

Chemicals.	1901.	1900.	1899.
Bleaching powder	$1.80	$1.60	$1.25
Brimstone, 3ds	20.25	19.25	20.50
Caustic soda, 70 p. c.	1.90	1.85	1.45
Caustic soda, 60 p. c.	1.95	2.25	1.80
Sal soda, Am.	.55	.70	.70
Soda ash, 48 p. c. carb.	—	1.35	.90
Soda, ash, 48 p.c. caustic	—	—	1.50
Soda, alkali, 48 p. c.	.90	.90	.90
Soda, nitrate	1.85	1.70	1.62
Cream tartar, crystal.	.19½	.23	.22¾
Muriate of potash	1.83	1.83	1.78
Chlorate of potash	.08¼	.09¼	.09¼
Kainit	9.05	9.05	8.70
Paints.			
White lead in oil	.05¾	.06	.05¾
Litharge, Am., pow'd.	.05¼	.06	.05½
Paris green	.12½	.12½	.11
Orange, mineral	.08	.08¼	.07¾
Ven. red, English	1.80	1.80	1.75
Ven. red, American	.80	.80	.60
Barytes	17.00	17.00	18.00
Whiting, commercial	.40	.42	.42½
Drugs.			
Opium	3.22½	3.07½	3.10
Morphine, domestic	1.80	1.80	1.95
Quinine	.34	.31	.36
Alcohol	2.45	2.37	2.44
Borax, city	.07¼	.07½	.07⅛
Beans, tonka (Aug.)	.75	.70	.75
Cubeb, XX	.14	.09	.09
Cuttlefish	.21	.23	.12
Glycerine, C. P., drums	.14½	.14½	.12¼
Oil, castor, city	.12	.12½	.10⅝
Oil Cassia	.72½	.95	.77½
Oil, codliver, Nor.	20.50	22.50	19.50
Oil, peppermint, tins	1.25	.80	.85
Oil, sassafras	.36	.35	.32
Quicksilver	.66½	.67½	.59½
Asafoetida	.27	.18	.16
Gum arabic, sorts	.12½	.14½	.16¼
Camphor, bbls.	.60½	.59½	.44½
Shellac, D. C.	.27	.28	.26
Senna, Alex. Nat'l	.23	.23	.24
Senega root	.53	—	.27
Ipecac	2.85	3.00	3.90
Jalap	.12	.11½	.10½
Canary seed, Smyrna	.02¾	.02¾	.02½
Caraway seed, Dutch	.06	.06¾	.05½
Mustard seed, Cal., yel.	.06	.05½	.03¾
Rape seed, German	.03¼	.02¾	.03
Oils.			
Cottonseed, prime, S.Y.	.38	.37½	.26½
Olive, Sicily	.62½	.57	.52
Cocoanut, Ceylon	.06	.05¾	.05¾
Lard, prime, city	.70	.56	.40
Linseed, domestic	.70	.65	.39
Menhaden, prime, cde.	.25	.25	.23½
Whale, bl'sh'd, winter.	—	—	—
Sperm, bleached, winter	.64	.62	.60
Oil cake, Western	26.25	28.00	24.00
Spirits turpentine	.36½	.46½	.42
Dyestuffs.			
Bichromate potash, Am.	—	.09	.09½
Cochineal, Teneriffe, S.	.16	.22	.22
Cutch, bag	.04¼	.04¼	.04
Gambier	.05½	3.50	2.85
Indigo, Bengal, h. gde.	.85	.95	.85
Prussiate, potash, yel.	.13¾	.18¾	.19
Starch, corn	1.69	1.75	1.44
Sumac, Sicily, prime	52.00	55.00	55.00

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OLIVE OIL, Malaga, Italian.
REFINED RAPE OIL.
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DRUG MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on pages 34 and 35.

Saturday Evening, July 5, 1902.

Advanced—	Declined—
Ceresin, ½c.	Oil bergamot, 5c.
Cocoa butter, 2c.	Ipecac, 5c.
Santonine, 30c.	Aloes, Curacao, ½c.

☞London cablegram on page 42.

Opium.

Continued dullness pervades the local opium market, no sales of more than jobbing quantities or single cases being reported. Nominally, quotations are unchanged at $2.80 for cases and $2.82½, but it is intimated that these figures are being shaded. A bid of $2.80 on a single case did not secure the business, and this fact gives some color to the report. Mail advices from Turkey state that there are large orders in the Smyrna market, both for America and other consuming points at a shade below the prices quoted at the time the letter was written, and our correspondent states that an active market may be expected shortly. We have the following cable advices:—

Smyrna, July 4, 1902.

There have been sales of 35 cases new opium at 6. 6d.@9d. Arrivals of new gum 600 cases.

Constantinople, July 4, 1902.

The market is quiet. There have been sales of 5 cases new crop at 6s. 6d.

Constantinople, July 4, 1902.

Sales have been made of 3 cases new crop druggist's talequale at 6s. 6d.@6s. 7d.

Smyrna, July 5, 1902.

The sales amount to 37 cases new opium at 6s. 5d.@6s. 9d. We expect a further decline.

Our mail advices follow:—

Smyrna, June 14, 1902.

Our market has been quiet again this week, with sales amounting only to a few cases of selected Karahissar and Yerli talequale, bought by Youghourina makers for the Continental markets, and for which they do not mind paying the comparatively speaking high prices holders persist in asking. The large arrivals of new opium which daily come in will in a few days, we hope, bring our sellers to their senses, and as large buyers do not respond to their high pretensions, it is very evident that the opening prices of new drug when available for shipment, will be low in order to induce buyers to operate. There are large orders on hand, both for the States and other consuming markets, at a trifle lower than what can be done at present; therefore in a short time we expect to report a very active market. We quote to-day: Current talequale for manufacturing, 6s. 10d.@7s. 1d.; selected talequale for manufacturing, 7s.@7s. 3d.; Yerli grades for manufacturing, 7s. 3d.@7s. 8d.; choice selected druggists' opium for manufacturing, 7s. 8d. per lb. f. o. b. The arrivals to date amount to 95 cases, against 40 at same period last year.

Constantinople, June 20, 1902.

The crop is being gathered in rapidly, and under splendid weather conditions. The yield will probably be close to 9,000 cases and the quality is very good. Smyrna is weaker at 6s. 6d. for new, and everything points to a still further decline. The week's sales are 25 cases druggist's at 6s. 5d. The market is quiet.

Constantinople, June 20, 1902.

The sales of the week are 6 cases druggist's talequale at 7s. 4d. and 3 cases Karahissar at 7s. 2d. To-day we could get druggist's talequale of usual quality at 7s. New opium has arrived here from Gueive, Lefkia and Bilejik.

Quinine.

Only a small jobbing business has been done this week, and it is intimated that second hands would shade prices to induce business in round lots. There is no way that the market can be tested, however, in the absence of important buying interest. Java is nominally held at 23@24c., but we hear that offers at 22½c. have failed to secure business. The heavy bark shipments during June, aggregating about 1,320,000 lbs., did not tend to add strength to the situation. About 6,000 oz. of damaged goods were sold at auction at an average price of about 11½c.

Miscellaneous.

ACID, BENZOIC.—The situation is entirely without change. Demand is light. Quotations are unchanged at 7½@8c. for gum and 34½@37c. for acid, ex toluol.

ACID, CITRIC.—A slightly improved demand is noted with the advance of the consuming season and the market keeps firm. Prices are unchanged from the basis of previous quotations, which are repeated as follows:—American, barrels, 33c.; kegs, 33½c.; Sicilian, 32½c.; kegs, 33c. eW have the following correspondence:—

Messina, June 18, 1902.

Since our last report prices in our market have advanced and are now firmly maintained at £13 for citrate of lime and £13 2s. 6d. for concentrated lemon juice, prompt or forward delivery. The advance is due in a measure to more demand from abroad and also to uncovered sales here. Manufacturers are reluctant to book forward contracts even at above figures.

ALCOHOL.—There has been no change in the situation as regards grain alcohol, notwithstanding the higher prices for the raw material. Improvement is prevented by competition. Quotations are $2.41@2.51 as to quantity and seller. Wood alcohol continues firm and in demand at 65c. for 95 per cent., and 70c. for 97 per cent.

BEESWAX.—For jobbing lots of yellow wax holders quote 32c., but for quantities better may be done. Supplies are coming forward more freely, and with bleachers pretty well filled up now, the market seems to have a little easier tone, although no quotable change has been made in prices. Quotations for white wax are unaltered at 38@50c., as to quality, quantity and seller.

BURGUNDY PITCH.—The situation presents no new features with which to supplement previous reports. There is a small jobbing demand at steady prices, ranging from 2½@3c.

CANTHARIDES.—The market for Russian flies is somewhat stronger in sympathy with advices from abroad. Spot stocks are very light and cannot be replaced at current quotations. The market for Chinese flies is featureless. Quotations are as follows:—Russian, 62@65c.; Chinese, 42½@45c.

CARNAUBA WAX.—The sailing vessel Mabel I. Myers, from Pernambuco, has entered 1,165 bags of wax. This vessel left before the quarantine went into effect. A rather peculiar situation has developed regarding this quarantine. It will be remembered that in its issue of June 2 the Reporter stated that a yellow-fever quarantine was in force at Pernambuco. Subsequently, information came that, instead of yellow fever, bubonic plague was the cause of the restrictions. This last advice came in answer to a cabled inquiry from parties in the market here. Notwithstanding this, the steamer Byron, from Pernambuco, entered thirty-one bags last week. The Reporter has been unable to secure any definite information on the subject of the quarantine. At all events, these two shipments are said to have cleaned up the old crop wax in primary markets, and no new wax, we are told, will be shipped before January. There is comparatively little doing in the market at present, but values keep firm, as previously quoted.

CASTOR OIL.—The situation presents no features of interest. Demand is of routine proportions. Quotations are unchanged on the basis of 11½@12½c. for No. 1 in barrels.

CASTILE SOAP.—No material change has come over the situation, and the market contains no new features with which to supplement previous reports. Quotations are on the basis of 10½@11c. for Conti's white.

CERESIN.—A very good demand is manifest and the market is firm and higher. Quotations are as follows:—Yellow, 13@15c.; white, 14@17c. The spot supply is light and crude material is scarce in primary markets.

COCOA BUTTER.—Details of the Amsterdam auction will be found in an editorial on another page of this issue. Under the influence of the higher average price paid at the sale, the market here advanced to 32@32½c. for bulk, as to brand and holder. Boxes are quoted at 37@38c. There was some little buying between dealers previous to the sale, but no important transactions were reported and the market has quieted down again, although the undertone is very firm.

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CODLIVER OIL.—The market has been quiet this week, but has lost none of its firmness. There are a few lots at $38, but up to $40 is asked for old oil. Cables from Bergen quote the equivalent of $42 laid down here, or $1 less than last week's quotation. Final returns of the fisheries will be found in an editorial on another page of this issue. We have the following cable advices:—

Aalesund, July 4, 1902.

The final returns from the Finmarken fishery show a catch of 7,000,000 fish, producing 2,200 hectolitres of oil. We quote $37 per barrel, f. o. b. Aalesund, for prime, non-congealing codliver oil.

Bergen, July 3, 1902.

The total Finmarken catch was 7,000,000 fish. The production was 2,248 barrels. We quote $36 per barrel, f. o. b. Bergen, for prime, non-congealing codliver oil.

COLOCYNTH APPLES.—In sympathy with advices from abroad, the market keeps firm, although business is only of light jobbing proportions. Quotations are 15@17c. for Spanish and 38@45c. for Trieste. Advices from Trieste state that stocks in that market are nearly exhausted, and only single cases are to be had now and then at high prices. The new crop will come in toward the fall.

CUTTLEFISH. — The market presents no new features, but keeps very firm in sympathy with conditions noted heretofore. Information comes from Trieste that owing to the continual bad weather during the whole spring, the catch of jewelers' bone has given a very poor yield, and accordingly very high prices have been paid for the first arrivals. Trieste bird bones are also very scarce, and the last prices are, therefore, fully maintained.

DRAGON'S BLOOD.—There is nothing in the situation to call for special comment. A routine business is being done at quotations noted in our list of prices current.

ERGOT.—There has been no change in market conditions since our last report. The feeling is dull, but there is a firm undertone in sympathy with foreign markets. Quotations are as follows:—Russian, 39@42c.; Spanish, 40@44c.

GLYCERINE.—Demand is fairly active and the market keeps firm in sympathy with foreign advices. Quotations are unchanged from the basis of 14½@15c. for C. P. in bulk, drums and barrels added. We have the following correspondence:—

Paris, June 20, 1902.

Glycerine.—The market continues steady, but somewhat inactive, both buyers and sellers being always on their guard for fear of precipitating an advance. As a result there is very little business doing. There has, however, been some business in futures. The English buyers who have been considerably engaged in the market have lately stopped their purchases, this being probably due to the coronation festivities.

JAPAN WAX.—The market is much stronger in sympathy with conditions noted heretofore, and holders are asking up to 9¼c. One or two cases are still to be had at 9c. Cables from primary markets make the cost to lay down about 9½c.

LYCOPODIUM. — There is nothing new to report either as regards prices or volume of business. Demand is light and quotations are unchanged at 52c. for unlabeled and 53@55c. for Pollitz.

MANNA.—The market keeps firm under conditions previously noted, but offers no new features. Quotations are as follows:—Large flake, 60@80c.; small flake, 50@52c., as to quality and holder.

MENTHOL.—Only a light demand is manifest at present, but the market keeps firm at $4.25@4.50, as to holder.

NAPHTHALINE.—Demand continues seasonably good and the market is firm at quotations noted in our list of prices current.

NITRATE OF SILVER.—There has been no change in manufacturers' quotations for crystals, since the advance to 36@37½c., noted in our last market report. The inside figure is for 1,000-oz. lots.

QUICKSILVER. — The jobbing demand continues good and the market is firm at 64½@65c., as to quantity and holder.

SANTONINE. — Manufacturers have announced an advance and now quote crystals on the basis of $5.75@5.80 for 25-lb. lots. Powdered sells at an advance of 10c. over the price of crystals.

Balsams.

This department is absolutely without new feature this week. There is a fairly good demand for jobbing quantities of copaiba at 36@40c. for Central American, which receives the most attention, and 45@50c. for Para, according to quality and holder. The firs are dull and more or less nominal. Peru and tolu are in much the same condition.

Barks.

Cut soap bark continues in fairly good seasonable demand and the market is steady at 5@6c., as to quality and quantity.

Prime quality sassafras bark continues firm at 7@10c., as to quality, quantity and holder. Stocks are light. Demand is good.

With these two exceptions the market is without feature. We have the following correspondence:—

Trieste, June 16, 1902.

The new crop of buckthorn bark has been a rather large one, but farmers ask, notwithstanding, a high price, claiming that during the next three years a small crop only can be expected. Barberry bark of root and stem is scarce and dear. There is a brisk demand felt, especially for root bark, which is held now at 9½@10c. per lb. c. & f. New York.

Beans.

The demand for vanilla beans has fallen off slightly, but the market keeps firm at quotations noted in our list of prices current.

St. Ignatius beans are scarce and firm at 12@16c., as to quantity and quality, but there is little demand.

Tonka beans move slowly at unchanged prices.

Berries.

Cubeb berries are very dull, and prices are nominally unchanged at 9½@10c.

Juniper berries continue very firm at 3¼@3½c.

An inside quotation for saw palmetto berries is 8c. The article is in light supply and the market is firm.

Essential Oils.

There is a much stronger tone to the market for peppermint oil, although as yet no quotable change has been made in prices. Bids of $1.92½ are said to have been turned down for case oil, the inside quotation being $1.95. Some sales have been made, among them one of 20 cases at $1.95, and it is reported that another sale took place involving 150 cases. There are said to be buyers at a shade under quotations of both bulk and case oil, but no holders are willing to make concessions. We have the following letter from a correspondent in the West, which contains some interesting information concerning the crop. The letter is dated June 26:—

The writer has during the past 10 days visited nearly every portion of the mint growing district and can now state with the utmost certainty that instead of the growing crop promising to yield about 20 per cent. more than last year, the chances are more than even that the total amount produced this year in the United States will probably be less than last year's, unless the season from now on

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should be an extraordinarily good one in every respect. On visiting one large farm where about 400 acres were cut last year, yielding a fair, but not large crop, and which, owing to the moderate yield of last year, with the consequent slight drain upon the land's fertility, should have produced at least an equally good crop this year under favorable conditions, the entire area is the nearest a total loss we have ever yet seen; so much so that probably three-fourths of the ground will not be harvested at all, being a total loss, and that which is left will produce only a very slight crop. So badly were the roots "winter killed" on this tract that although enough new ones were planted last year to reset over 1,000 acres this year under usual conditions, there were actually not sufficient roots on the entire tract to set 50 acres, so that the owners were obliged to purchase roots elsewhere, a condition which never before had existed in the history of their business, for over 20 years. Another large grower near South Bend, Ind., has suffered so much loss from late frosts and "wire-worms" that although he planted about 60 acres of new mint and expected to have a good crop from all of his old, he will actually have less oil than last year. He, as well as his neighbors, has suffered also from excessive rains, so that some of the growers in that locality will suffer the entire loss of some fields which they have been unable to cultivate. In Allegan county, although the roots came through the winter well the growth of the plants has been largely retarded by the unusual cold and wet weather, and upon two of the largest farms there, some of the fields will be a total loss from these causes, combined with the effects of grasshoppers, which have reappeared there this season. We had expected there would be a slight increase in the amount of oil produced, owing to more new having been planted than last year, but there is no question that the crop will be actually smaller. The same conditions exist in the Decatur district. As the cold and wet weather have been universal through Southern Michigan and Northern Indiana, which includes the entire mint producing area, the injury to the crop has been universal, there being only one very small area comprising less than 400 acres which we have seen where the mint is all in satisfactory condition.

Pennyroyal continues in fair, seasonable demand at $1.35@1.40. The market is strong.

Prices for bergamot have advanced in sympathy with reports from primary sources. The quotation is now $1.95@2.10, the outside price being for Sanderson's. There has been no change in prices for lemon and orange oils, but the market is very firm in sympathy with primary markets. We have the following correspondence:—

Messina, June 17, 1902.

Since my last report I have to inform you that lemon oil is advanced on account of good demand from exporters of this town, and as the essence is now in the power of big manufacturers, and pressure being ended, these latter easily get higher rates. The same may be said for bergamot, while sweet orange being demanded, fetches a slightly higher price. The coming crop appears to be fine for lemons, medium for bergamot, and good for sweet oranges. Prices are to-day: Lemon, 57c.; sweet orange, $1.26; bergamot, 36 per cent., $1.75; bergamot, 38 to 40 per cent., $1.83; bitter orange, $1.10, per lb., c. i. f., New York.

Flowers.

The market for old crop German chamomiles continues somewhat easy, owing to causes stated heretofore, and the quotations of 17@23c., as to quality, quantity and holder, are somewhat nominal. Trieste advices are to the effect that the new crop of Hungarian goods is now ready, but owing to the continual rains a large part of the output has turned out of poor quality. A lot of two tons strictly prime goods can be invoiced at 12c. in cases, which is cheap in view of the scarcity of this grade.

Arnica flowers move slowly and in small lots at nominally unchanged prices of 9@9½c.

The scarcity of elder flowers keeps the market firm at 9@11c., as to quantity and quality.

We have the following correspondence regarding articles in this department:—

Trieste, June 16, 1902.

To-day we have to report that insect flowers remained extremely firm. There arrived still other lots of the new crop, but little business only has been done during the last week. The flowers are not yet perfectly dry and it seems, as high prices are demanded, that consumers prefer to wait still some weeks with purchases. Prices are unchanged, as follows: Open flowers, of which the new crop, however, is not yet to hand, at from 17½@18c.; half closed, at from 20@27c., and closed, at from 29@32c. per lb., c. & f., New York. Arnica flowers are in good demand, but stocks on hand here are small. The new crop will, however, soon appear; but we do not think that it will be a large one, as the weather is rather unfavorable.

Gums.

Curacao aloes of the new crop are coming in and are offering in a large way at 3c.

There is a moderate jobbing demand for Sumatra benzoin at 27@35c., as to quality and holder.

Arabic sorts and Aleppo tragacanths continue in fair demand at firm prices.

Camphor continues to move well at quoted prices.

Gamboge is quiet, and in the absence of demand prices are somewhat nominal.

Herbs and Leaves.

Advices from the other side state that the crop of French rose petals has been damaged by bad weather.

Medium grades of senna are in fair demand for jobbing quantities at firm prices.

There is a fair jobbing demand for short buchu leaves at prices ranging from 24@26c., the outside figure being for prime green.

Cannabis indica is receiving little attention just now, but the market keeps firm at quotations noted in our list of prices current.

We have the following correspondence:—

Trieste, June 16, 1902.

Sage leaves are in more demand now and are held at high prices, as stocks on hand are small and the new crop is still far. Should the present unfavorable weather continue the new crop will surely not turn out better than the last one. Picked sage is quoted at from 3@4c. per lb., c. & f., New York, as to quality and quantity.

Roots.

St. Vincent's arrowroot is very scarce and the market is firm, with none offering below 8½c., and only a little at that.

The temporary scarcity of Mexican sarsaparilla root keeps the market firm at 7@7¼c., as to quality and quantity.

Ipecac is easy and lower. Cartagena is quoted at $1.10@1.15 and Rio at $2.45@2.50.

Jamaica ginger is in some demand, but no large business is reported. Prices are unchanged.

Golden seal, senega and serpentaria are not attracting much attention from buyers. The Winnipeg Commercial says:—

Senega—Receipts are light and market holds firm. Some in the trade here are quoting as high as 37c. per pound for clean, bright root, delivered here, with lower prices for inferior grades.

The market for gentian keeps firm under conditions noted heretofore, but lack of important demand prevents any improvement in prices.

Jalap is a little stronger. Sales were made at 8¾c., none offered now under 9c.

Seeds.

The market for canary seed keeps very firm in sympathy with advices from primary markets, but there has been no further advance.

Celery seed is very firm at 7½@7¾c., as to quality and holder. Strong reports come from primary sources.

The firmness of poppy seed shows no abatement. Quotations are 6¾@7c.

Nothing new can be reported in regard to Russian hemp seed. The market continues firm.

Shellac.

Trade has continued dull during the week, and we hear of no business aside from a few jobbing transactions. One or two sales have materially reduced stocks of V. S. O., which is in very light supply at present and firm at 34@35c. A feature of the mar-

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ket is the absence of offers of high-grade marks from Calcutta. The comparatively light stocks on spot will have to last until December, as we are told that none will be shipped from Calcutta before October. Dealers look for higher prices. The shipments from Calcutta during June, 1902, and 1901, were as follows:—

	1902. 1st Half Cwt.	1902. 2d Half Cwt.
To United States	8,100	4,200
To United Kingdom	1,500	4,200
To the Continent	2,500	700
Totals	12,100	9,100

	1901. 1st Half Cwt.	1901. 2d Half Cwt.
To United States	4,600	4,800
To United Kingdom	1,000	3,800
To the Continent	1,000	2,000
Totals	6,600	10,000

Spices.

There has been a continued lack of speculative interest in the local market for invoices. Eastern markets for black pepper continue strong, and there is an absence of offerings. These facts, in conjunction with the strong statistical position of the article, induce considerable firmness on the part of holders of goods on spot or nearby. We hear of a sale of 25 tons Singapore black for July-September shipment at about 11½c. Cloves, good quality cayennes, mace and nutmegs showed considerable strength on firm cables. Grinders took moderate to fair lines of various spices. The shipments of pepper and nutmegs from Singapore and Penang during the period from Jan. 1 to June 30 were as follows:—

	1902. Tons.	1901. Tons.	1900. Tons.
Black Pepper	1,940	3,320	2,220
Nutmegs	205	248	220

(Special Cablegram to the Reporter.)

London Closing Prices.

London, July 5, 1902.

Spot shellac is weak at 102s.

Quinine is held at 11¼d.

Zanzibar cloves, July-August shipment, 3 1-16d.

At the kauri gum auction on Thursday one-fifth of the offerings sold at steady prices.

Parties desiring to be brought in contact with concerns who offer bargains in machinery are respectfully referred to page 27 of this issue.

If you desire to be brought in contact with the makers of machinery which enters into the manufacture of chemicals, drugs, paints, dyestuffs, fertilizers, naval stores, varnish, white lead, cotton oil, linseed oil, lubricating oil, etc., we would respectfully refer you to the Machinery Department of this publication, which you will find on page 23. Any special information that may be desired will be gladly furnished upon application, for we are in a position to place prospective purchasers in direct communication with the manufacturers of machinery of all kinds.

Action of Contact on Secondary and Tertiary Alcohol

(From the French of J. A. Trillet.—Communication to the Academic des Sciences.)

In a previous communication, I have shown that, under the influence of contact with a platinum coil, the primary alcohols of the fatty series were partially converted into corresponding aldehydes. It seemed desirable to ascertain how the secondary and tertiary alcohols would behave and for this purpose I submitted them to the same treatment with the same apparatus.

I have operated on the following secondary alcohols: Isoprophylic, butylic, amylic and octylic.

Isoprophylic Alcohol: CH3. CHOH. CH3.—The commercial isoprophylic alcohol often contains acetone as an impurity. It should be carefully purified. 37.5 grams of alcohol were brought by a current of air on the platinum coil previously heated. After a few minutes, the heating was stopped; the coil continued at a dull red under the influence of oxidation. Of the 37.5 grams of alcohol, 25 cubic centimeters of liquid were collected, the remainder having been carried off by aspiration. This liquid, neutral in its indications, has yielded, on addition of ether and sodium bisulphite, an abundant crystalline precipitate whence dimethylic acetone may be extracted by the usual method. The output was 16 per cent.; the remaining liquid was unaltered isoprophylic alcohol.

The oxidation of isoprophylic alcohol by the action resulting from contact with heat is accomplished with a facility equaling that of ethylic alcohol; it is the best example to be noticed among the secondary alcohols.

Secondary Butylic Alcohol: CH3 CHOH. CH2 CH3.—The butylic alcohol employed gave no trace of reduction with reagents. The same treatment was employed: the condensed liquid products were purified, then treated with ether and sodium bisulphite. The non-crystallized bisulphitic compound was decomposed by sodium carbonate. By distillation, 2.5 grams of a liquid was obtained, which was distinguished as methyl-ethyl ketone.

Secondary Amylic Alcohol: (C2H5) 2CH. OH.—The alcohol employed in the tests was prepared by making zinc react on a mixture of ethyl formiate and iodide. By oxidation, a very small quantity of liquid was obtained, which had the properties of a ketone and not those of an aldehyde. Oxidized by potassium bichromate, a disengagement of acetic acid resulted. The small quantity of material at command presented a more complete determination.

Secondary Octylic Alcohol, methyl-hexyl-carbinol: CH3. CH. OH. C6 H13.—On account of the elevated boiling point of this alcohol its vapors are carried over at about 100 degrees. The oily layers from the condensers gave with sodium bisulphite a gelatinous precipitate soluble in water, which, heated in presence of sodium carbonate, has furnished a liquid distilling at 171 to 172 degrees, not reducing the ammoniacal silver solution. Treated with hydroxylamine, it yielded an oxime boiling at 221 degrees. The product obtained is therefore methyl-hexyl ketone, and the ketonic function of caprylic alcohol is again demonstrated.

To study the action of contact on tertiary alcohols, I have had recourse to butylic and amylic alcohol.

It was especially interesting to observe some results furnished by these alcohols, which, theoretically, could by oxidation, only give birth to the corresponding aldehyde. It is well known, that in this case the most simple hydrocarbureted radical remains generally united to the group COH to form an acid, while the other groups are oxidized. It is thus that dimethyl-ethyl-carbinol yields acetic and carbonic acids. A disaggregation of the molecule may thus be perceived in the action from contact.

Tertiary Butylic Alcohol: (CH3) 3C. OH.—This alcohol is easily drawn over. After several minutes of passage over the platinum coil, this was kept in the incandescent state under the influence of chemical action. This fact is remarkable, because here is a different reaction from the preceding. The analysis of the oxidized products led me to the investigation of aldehydic and ketonic derivatives, as well as to that of acids. The total acidity was scarcely noticeable. Considerable quantities of acetone and of an aldehyde were formed, which I easily determined as formic aldehyde, to the exclusion of other aldehydes of the fatty series. To account for this result, I have oxidized some oxide of acetone by the platinum coil, and have obtained formic aldehyde. This substance comes therefore in part from the final conversion of acetone, and probably also from the direct oxidation of the third methylic group of alcohol.

Tertiary Amylic Alcohol (dimethyl-ethyl-carbinol): (CH3) 2 C2 H5. C. OH has given analogous results: formation of acetone and of formic aldehyde*

It is, therefore, evident from these experiments, that the action of the platinum coil is manifested not only on primary but also on secondary and tertiary alcohols, yielding either ketones alone, or ketones and formaldehyde. In every case, the heat disengaged by the chemical reaction is sufficient to keep the platinum coil in an incandescent state.

*These results confirm those recently published by Messrs. Mulliken, Brown and French (Amer. Journ. V. XXV.)

Patents Granted.

702,172.—PROCESS OF EFFECTING THE DRYING OF NON-DRYING OILS AND PRODUCT PRODUCED BY SUCH PROCESS. William N. Blakeman, Jr., New York, N. Y. Filed March 5, 1901. Issued June 10, 1902.

702,173.—PROCESS OF IMPARTING DRYING PROPERTIES TO PIGMENTS. William N. Blakeman, Jr., New York, N. Y. Filed Oct. 31, 1899. Issued June 10, 1902.

702,174.—PROCESS OF TREATING PIGMENTS. William N. Blakeman, Jr., New York, N. Y. Filed Oct. 25, 1899. Issued June 10, 1902.

702,175.—PROCESS OF MANUFACTURING PAINTS. William N. Blakeman, Jr., New York, N. Y. Filed Jan. 2, 1900. Issued June 10, 1902.

702,176.—PAINT COMPOUND OR MIXTURE. William N. Blakeman, Jr., New York, N. Y. Filed Dec. 16, 1899. Issued June 10, 1902.

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(Special Correspondence to the Reporter.)

Chicago Seed and Oil Market.

Chicago, July 3, 1902.

It begins to look very much as though the Southwest were again to supply a crop of inferior quality flaxseed. The cloudy, showery weather has been unfavorable for the plant in its advanced growth, and fears of a wet harvest are entertained. Undoubtedly a considerable increase in yield per acre over last year will be secured, but the acreage is slightly below last year's, and with a wet harvest the percentage of contract seed would be very materially reduced. Iowa has had the worst kind of weather the past week, and the yield for that State will very likely have to be cut down. Throughout the Northwest the week was unusually wet and cold, there having been almost constant rains and deficient temperature. Flax is still being sown in some sections of North Dakota, but the crop, as a rule, is not doing well for want of sunshine and warmer weather. The early sown is beginning to blossom in some sections, but the late sown, which is just coming up, looks yellow and sickly, and in some few places shows the effect of the recent frosts. But a week of favorable weather would bring about a great change throughout the flax territory, and it is yet too early to place any dependence on damage reports. In prices the tendency of a week ago continues, cash flax yielding slightly, while futures show a further small advance. Advances and declines both have been within narrow limits, and there is little in the price changes to show what the future may bring forth. The market was neglected all week and cash flax was scarce. Under such conditions the market was largely nominal. The range of prices for the week was as follows:—

FLAX PRICES AT CHICAGO.

	Cash.	No. 1.	Rej.	Sept.	Oct.
June 26	1.74	1.55	1.68@1.71	1.36½	1.35½
June 27	1.73	1.54	1.67@1.70	1.40	1.35½
June 28	1.73	1.54	1.67@1.70	1.40	1.35½
June 30	1.73	1.54	1.67½	1.40	1.37
July 1	1.73	1.54	1.67½	1.40	1.36
July 2	1.74	1.54	1.67½	1.40	1.36
July 3, 1901	1.88	1.88	.....	1.43	1.38
July 3, 1900	1.80	1.80	.....	1.42	1.36

AT DULUTH.

	Cash.	No. 1. N.W.	Sept.	Oct.
June 26	1.60	1.75	1.41½	1.37
June 27	1.60	1.75	1.42	1.37½
June 28	1.60	1.75	1.42	1.37¾
June 30	1.60	1.75	1.42	1.37½
July 1	1.60	1.75	1.42	1.37
July 2	1.60	1.75	1.42	1.37

AT MINNEAPOLIS.

	Cash.	N.W. June.	July.
June 26	1.76	1.73	1.73
June 27	1.76	1.73	1.73
June 28	1.76	1.73	1.73
June 30	1.73	1.73	1.73
July 1	1.73	1.73	1.73
July 2	1.73	1.73	1.73

The total sales for the week footed up but two cars Northwestern at $1.73, two cars rejected at $1.67½ and 5,000 bushels October at $1.37. September was not traded in. The movement was again very light (13 cars) compared with 16 the previous week and 12 a year ago. The arrivals were scattered over all the grades, showing a cleaning up of odds and ends of country stocks. Chicago receipts, by cars, read:—

	N.W.	No. 1.	Rej.	No gd.	Non-insp	Total, 1902	1901
June 26	..	..	..	..	..	..	2
June 27	..	..	..	..	1	1	2
June 28	..	1	1	..	1	3	3
June 29	..	..	..	..	..	..	1
June 30	5	7	24		30		..
July 1	..	1	1	1	..	3	1
July 2	..	..	..	..	1	1	3
Totals.	1	3	4	1	4	13	12
Total on op.	1,030	1,254	931	61	1,118	4,381	7,273

The Northwest shows a moderate gain in movement, due to surpluses after sowing, but it is quite evident that these surpluses are much smaller than a year ago, and that the amount of seed yet to come forward can have little effect on the market price. The more important gains were made at Minneapolis, a large crushing point, and, judging from the public stocks there, the seed is being directed to that point because of a need for crushing. The movement at all points was as follows:—

	Chicago.	Duluth.	Min'olis.	1902.	Total, 1901.
June 26	..	4	1	5	24
June 27	1	5	6	12	37
June 28	3	4	14	21	13
June 29	..	..	..	..	23
June 30	5	7	24	36	—
July 1	3	16	13	32	41
July 2	1	5	10	16	32
Total	13	41	68	122	170
Total on op.	4,381	15,855	9,621	30,700	25,049

Aside from 14,646 bushels flaxseed loaded into boat the shipments were very light, the total reaching:—

	N.W.	No. 1.	Rej.	Non-insp.	Total, 1902.	1901.
June 26	..	221	322	..	543	8,750
June 27	..	14,646	..	..	14,646	375
June 28	..	209	..	..	209	..
June 29	..	..	..	..	..	..
June 30	..	1,176	..	..	1,176	..
July 1	..	..	..	..	..	..
July 2	..	..	..	..	..	..
Total	..	16,252	322	..	16,574	9,125

The 16,926 bushels in public store at Chicago disappeared this week, being loaded out, and leaving not a bushel in public elevators. Chicago figures stand as follows:—

1902—	N.W.	No. 1.	Rej.	No gd.	Tot'l
June 28	..	..	..	..	..
June 21	..	16,926	..	..	16,926
Decrease	..	16,926	..	..	16,926
1901—					
June 29	..	..	..	..	..
June 22	..	..	..	..	..
Decrease	..	..	..	..	..

The total visible decreased 56,290 bushels, as compared with an increase of 17,826 last year. This variation in figures is due largely to the limited movement the present season and to a correspondingly large movement last year. The present week is quite likely to show an increase in store at Duluth from country deliveries; at least, such was the case a year ago. The visible now reads:

1902—	Chicago.	Duluth.	Min'olis.	Total.
June 28	....	74,507	13,049	87,556
June 21	16,926	94,532	32,388	143,846
Decrease	16,926	20,025	19,339	56,290
1901—				
June 29	....	48,400	4,349	52,749
June 22	....	30,000	4,923	34,923
Increase	....	18,400	*574	17,826

*Decrease.

The total receipts for June at Chicago were but 73 cars, of which 66 were contract seed. The details, with comparisons for the previous five years, follow:

CHICAGO RECEIPTS FOR JUNE.

	No. 1.	Rej.	No grade.	Total
June 2	7	..	..	7
June 3	3	..	..	3
June 4	3	..	..	3
June 5	2	1	..	3
June 6	1	1	..	2
June 7	4	..	..	4
June 9	3	1	..	4
June 10	3	..	..	2
June 11	2	..	..	2
June 12	4	..	..	4
June 13	6	..	..	6
June 14	1	..	..	1
June 16	3	..	..	3
June 17	3	..	..	3
June 18	1	..	..	1
June 19	3	..	..	3
June 20	1	1	..	2
June 21	3	..	..	3
June 23	5	..	..	5
June 24	..	..	..	..
June 25	3	..	..	3
June 26	..	..	..	..
June 27	1	..	..	1
June 28	1	1	..	3
June 30	3	2	..	5
Total, 1902	66	7	..	73
Total, 1901	152	25	4	181
Total, 1900	21	1	..	22
Total, 1899	186	16	7	209
Total, 1898	195	6	1	202
Total, 1897	313	156	31	500

Receipts compared by months for the two years are herewith given. It is quite probable that the receipts for July, August and September of 1902 will run about the same as those of the corresponding months of 1901, but beginning with October a very considerable increase over last year's figures may reasonably be looked for. The figures:

MONTHLY RECEIPTS LAST TWO YEARS.

	1902.	1901.
January	432,000	334,500
February	215,200	258,750
March	159,700	306,000
April	114,000	234,750
May	87,000	236,250
June	305,012	135,750
July	....	109,500
August	....	561,000
September	....	360,000
October	....	554,250
November	....	538,750
December	....	581,243

LINSEED OIL.—Market entirely unchanged at 64c. for raw in car lots, Chicago. A further decrease in the visible and a scarcity of offerings of cash flaxseed are the strong factors in the

situation, though crushers are apparently satisfied with present prices.

LARD.—The world's visible lard shows somewhat smaller increase than for the corresponding month last year, and the total supply in sight is now smaller than for many years at this time of the year, when the season of accumulations is supposed to be at its best. With a continued light supply of hogs it looks as if September 1, the time when consumptive demand is generally largest, will find the trade with such limited supplies in sight that fancy prices may be reached. The week opened quiet but firm on a moderate run of hogs and steady prices for them, and for the first half of the week there was little feature to the trading except the continued absence of cash demand. Later, strength developed, owing to the sharp advance in grains, and English traders were good buyers, the close showing a gain for the week of 12½c. Shipments were liberal at 18,500 tierces, as against 15,500 last year, and exports improved to 32,500 tierces, as against 18,000 a week ago and 29,500 a year ago.

STEARINES.—Oleo stearine weaker, with large sales at 13¼c. Some of the makers continue to ask 13½c., and others ask 13⅜c. Accumulations are large enough to make an easier market for a few days, even though lard should continue to advance. The compound lard trade is reported very light, and this is responsible for the accumulations, which are likely to increase unless compound lard trade picks up. No. 2 is offered at 12c., and it is difficult of sale at that figure, as tallow stearine can be had so much cheaper. Offerings of tallow stearine are increasing and the price holds steady at 7¾@8¼c., according to quality. In white grease stearine Eastern fancy stock has sold at 6¾c., and ordinary goods are held here at 6¼@6½c. Yellow is quiet and freely offered; market nominally 5¾@6c.

OLEO OIL.—Prices for oleo oil have weakened as a result of the effects of the new law, and packers name 11½c. here for extra and 11⅛c. for No. 2. Extra stock nominal at 12c. Some old lots were reported sold abroad at 2 florins under new arrivals of first quality.

TALLOW.—There is a continued fair demand for the better grades of low acid test, but practically no inquiry for the low grades. Choice packers edible is quotable at 8¼c., with very little offered. Eastern so-called edible, 7⅝@7¾c.; prime packers, 7¼@7½c.; prime country, 7c.; No. 1 packers, 6½@6¾c.; No. 1 country, 6⅜@6½c.; bone tallow, 6½c.; No. 2, 5½c.

GREASES.—A generally light trade ruled during the week. Stocks continued in fair request, but buyers and sellers were somewhat apart in their views. A white, 7@7¼c.; B white, 6@6½c.; house sold at 5@5⅝c.; fancy yellow, 5¾c.; ordinary yellow sold 5½c.; bone, 5½@5¾.; brown, 5⅜c.

COTTONSEED OIL.—The only offerings of cottonseed oil come from second hands, and there is but light inquiry. We quote prime Summer yellow 41½c.; off yellow (soap grade), 40@40½c.; prime crude, 39c.; butter oil, 44c.; all loose Chicago. Concentrated soap stock, testing 65 per cent. fatty acid, is quotable at 2⅜@2½c.; regular stock on basis of 50 per cent. F. A. is 1⅜c.

Parties desiring to be brought in contact with concerns who offer bargains in machinery are respectfully referred to page 27 of this issue.

Constancy to Light of Various Coal-Tar Lakes.

In a recent number of the Farben Zeitung mention is made of a very valuable treatise on the subject of the manufacture of lakes, written by Prof. E. Valenta, and treating of the examination of the lakes manufactured of tar and used for the purposes of the manufacture of colored papers and of wall papers, as well as of the tints applied in the printing of books and illustrations, considering also their utility for printing and their covering power. The usual practice of testing printing colors for permanency to light consists in first grinding the respective color with pure, resin-free linseed oil varnish, then printing this color upon white rag paper free from any woody substance and finally exposing it to daylight. In the deliberations of the Third Congress for Applied Chemistry (Vienna, 1898), K. Hazura recommends the following method: Cover the surface upon which the respective color is printed with black paper, so that at first only one square of the upper part of the surface on the left is exposed to diffuse light. A week later another part of the lower surface on the left, two weeks after a square of the upper surface on the right, and three weeks later a square of the lower surface on the same side are exposed to the light so that the single sections are subjected to this process for the space of one, two, three and four weeks, respectively. Hazura designates lakes or other pigments that showed no change even after a four weeks' exposure to light in the months of June, July and August, as "fast;" those which endure it for two or three weeks he calls "genuine," while he applies the appellation of "fugitive" to such as fade after a few days.

This process may suffice for common purposes, but Valenta has devised another, wholly scientific method, determining by means of Stammer's colorimeter the quantity of dyestuff that is destroyed by the light.

As is well known, the fastness of a lake depends not only upon the dyestuff used for its manufacture, but also upon the quality of the substratum upon which the dyestuff is precipitated; furthermore upon the binding agent used for the coloring matter; upon the proportion of the binder to that of the coloring matter; upon the paper on which the coloring matter is applied, and, besides these, upon other factors of more or less importance. The author, in taking the utmost pains in considering these factors, has for this reason produced the lakes himself by using only pure chemicals.

From the statistical tables regarding the dyestuffs hitherto investigated, it appears that the lakes made of the color materials of the eosin group, when ground with varnish, furnish dyes which do not particularly differ in essentially greater or lesser fastness; they are, with respect to their fugitiveness, rather of pretty much equal value. Far more favorable is the result obtained with the eosin lakes when ground with water or gum. While the varnish colors had perfectly faded after a thirty days' exposure to light, the water colors had suffered only a partial effacement. A twenty-four hours' exposure to solar and diffuse daylight in April already sufficed with the strips imprinted with varnish colors to destroy from 40 to 63 per cent. of the coloring matter extant upon the respective printing surface; and yet the lead lakes of these coloring matters are of greater fastness than the tin lakes. It is customary to precipitate these pigments on red lead, a substratum that is in itself red and fast to light, so that these colors lose only the fiery tint imparted to them through the eosin color lake, while the total fading of the print color under the influence of the light is prevented, without, however, the lakes of eosin colors becoming more fast to light.

Among the red colors investigated, paranitranilin red proved especially valuable, although its fastness comes far behind that of the alizarin red; yet it surpasses that of the expensive carmine lake. Nevertheless, even this color exhibits great differences as to the permanency to light, according to the character of the substance on which it is precipitated, whether on heavy spar or on kaolin or lime. The proportion of the baryta lake when compared, with reference to fastness, to kaolin or lime lake is as 19:6:5, so that it seems as if the increasing alkalinity of the substratum would impair the permanency to light of the pigment.

With the ponceau dyes the mode of precipitation seems to exercise a particular influence upon the fastness of the printing colors. The Excelsior lake ponceau J. N. was fastest to light when produced according to the following method: Sixty parts of aluminum sulphate are dissolved in water and precipitated with 21 parts of soda; to this is added 15 parts of the coloring matter and 10 parts of chloride of barium, both likewise dissolved in water.

Very discrepant results were obtained with two rhodamin lakes, one of which was treated with tartar emetic and tannin, the other with albumin by boiling, and both precipitated upon alumina; the former proved less sensitive to light and showed a violet-red tint; the latter, on the contrary, was of a more fugitive yet fine color. For graphic purposes the second lake is not available, as it is hard to pulverize and produces but a poor print, while the first mentioned lake was easy to pulverize and also printed satisfactorily.

Among the blue and violet dyestuffs so far examined the alizarin lakes, especially that of the brilliant alizarin blue, were distinguished by great constancy to light. With two methylene blue lakes the precipitation upon heavy spar revealed far greater fastness than that upon kaolin. The lakes produced with various kinds of alkali blue gave interesting results, inasmuch as the color lakes precipitated with tin salt upon baryta or merely upon alumina hydrate produced lakes of greater fastness than when the precipitation was made with chloride of barium. The latter yielded with alkali blue besetra a very pure ultramarine blue, which, when ground with varnish, prints well, but is apt gradually to get darker when exposed to light. Tin precipitation produced a magnificent blue lake, the color of which forcibly reminded one of the hue of the gentian flower; besides this it proved of great productiveness and good fitness for printing, as it hardly grows darker in light.

As regards constancy to light and aptitude for printing, alizarin blue, gallein, methylene blue, alkali blue and water blue are best suited for chromo prints, while coloring matters like victoria blue, acid violet, new methylene blue, cyanol and especially methyl violet, which furnishes extremely fugitive lakes, are to be avoided where fastness is required.

In place of chrome yellow, lakes from napthol yellows and mikado yellow are recommended; genuine dianin yellow and curcumin likewise furnish useful fast print colors, while auramin lake is deficient in this regard, being used in combination with blue colors for the production of the so-called "night green."

Among the green lakes hitherto examined, the one made of naphthol green excels in great fastness, although it is far from attaining the brilliancy of the lakes made of basic dyestuffs, as for instance, "brilliant" green; still it must be conceded that these again are lacking in fastness. The author has collected the results at which he has arrived by his investigations in tables which greatly facilitate a synoptical view.

GOODS ON THE WAY TO THE UNITED STATES.

From Singapore.

TO NEW YORK.

E. A. O'Brien, 1,000 lbs gambier.

TO BOSTON.

Gloosecap, 3,000 bls gambier.
Penobscot, 2,000 bls gambier.

From Chili.

TO THE UNITED STATES.

Borderer (ss), 28,000 bgs. nitrate soda.
Lady Joicy (ss), 26,000 bgs. nitrate soda.
Cuzco (ss), 27,000 bgs. nitrate soda.
Polarst Jernen (ss), 15,000 bgs. nitrate soda.
Condor (ss), 10,000 bgs. nitrate soda.
Capac (ss), 28,000 bgs. nitrate soda.
Myrtledene (ss), 25,000 bgs. nitrate soda.
Corinthia (se), 30,000 bgs nitrate soda.
Josefa, 8,500 bgs. nitrate soda.
Aristea (ss), 30,000 bgs nitrate soda.
Hughenden (ss), 25,000 bgs nitrate soda.
Danae, 8,500 bgs. nitrate soda.
Hero (ss), 42,000 bgs. nitrate soda.
Nellie Troop, 16,000 bgs. nitrate soda.
Whitecross (ss), 30,000 bgs. nitrate soda.
Visurgis, 10,000 bgs. nitrate soda.
Jupiter (ss), 45,000 bgs. nitrate soda.
Cacique (ss), 28,000 bgs. nitrate soda.
Pretoria (ss), 35,000 bgs. nitrate soda.
Britannia (ss), 26,000 bgs. nitrate soda.
Cuzco (ss), 25,000 bgs. nitrate soda.
Valentia (ss), 35,000 bgs. nitrate soda.
Geo. Fleming (ss), 40,000 bgs. nitrate soda.
Blue Cross (ss), 28,000 bgs. nitrate soda.

RECORD OF VESSELS.

Port and Name.	Sailed.	
From Singapore.		
To New York.		
E. A. O'Brien	May 13.	
To Boston.		
Gloosecap	March 11.	
Penobscot	May 19.	
W. C. S. America.		
Cuzco (ss)	Due July.	
Borderer (ss)	Due July.	
Lady Joicy (ss)	Due July.	In distress.
Polarst Jernen (ss)	Due July.	
Condor (ss)	Due July.	
Capac (ss)	Due July.	
Danae	Due July.	
Hero (ss)	Due Aug.	In Distress.
Valentine (ss)	Due August.	
Geo. Fleming (ss)	Due August.	
Myrtledene	Due September.	
Corinthia (ss)	Due September.	
Whitecross (ss)	Due September.	
Jupiter (ss),	Due September.	
Cacique (ss)	Due October.	
Pretoria (ss),	Due October.	
Josefa	Due October.	
Aristea (ss)	Due October.	
Hughenden (ss)	Due October.	
Nellie Troop	Due November.	
Visurgis	Due November.	
Britannia (ss)	Due November.	
Blue Cross (ss)	Due November.	
Cuzco (ss)	Due December.	

If you desire to be brought in contact with the makers of machinery which enters into the manufacture of chemicals, drugs, paints, dyestuffs, fertilizers, naval stores, varnish, white lead, cotton oil, linseed oil, lubricating oil, etc., we would respectfully refer you to the Machinery Department of this publication, which you will find on page 23. Any special information that may be desired will be gladly furnished upon application, for we are in a position to place prospective purchasers in direct communication with the manufacturers of machinery of all kinds.

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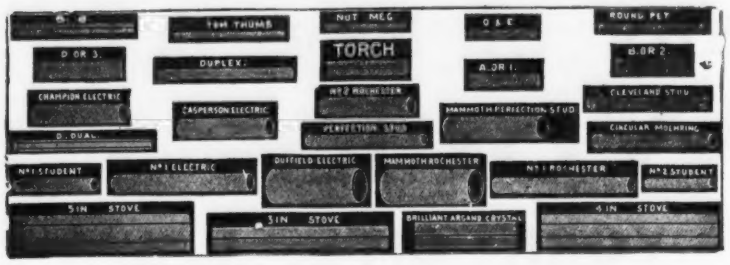

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Buffalo, N. Y., Jan. 19, 1901.

Standard Oil Company:

Dear Sirs.—We are using your Mica Axle Grease and are having very good results since using your goods. We have about seventy-five or more light and heavy trucks and delivery wagons, and it certainly pays us to use the very best lubricant that can be obtained. We cheerfully recommend it to all those who have any use for Axle Grease.
Very truly yours, Keller Bros.

CROBAUGH & DAHM HARDWARE CO., Wholesale and Retail Hardware, 99-101 S. Washington Street.

Tiffin, Ohio, Nov. 10, 1900.

Standard Oil Co., Cleveland, Ohio:

Gentlemen.—We have been handling Mica Axle Grease for a number of years, and are pleased to state that we have no complaints from our customers. The continued purchase by the same parties testifies well for its merits. Truly yours,
(Signed) Crobaugh & Dahm Hardware Co.

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Genoa, O., Nov. 21, 1900.

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(Signed) T. Skilliter & Son.

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PRODUCERS AND REFINERS
Of High Quality Oils Only
PETROLEUM LUBRICANTS
Of the Highest Viscosity and Fire Test.

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Standard Oil Company of New York
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Sole proprietors of the celebrated brands of Illuminating Oils

DEVOE'S

BRILLIANT, PHOTOLITE — 110° test
NONPAREIL, GOLD SEAL — 150° test

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Important to Railroad Managers and Master Mechanics
SIBLEY'S PERFECTION VALVE OIL
More perfect lubrication insured and entire freedom guaranteed from corrosion of cylinders and destruction of steam joints by fatty acids. In exclusive use on nine-tenths of the railway mileage of this country. References and prices furnished on application.

MAKE EXCLUSIVE SPECIALTY OF THE MANUFACTURE OF VALVE AND SIGNAL OIL FOR RAILROAD USE.

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Office, 125 Arch Street. PHILADELPHIA.

Sell Steve Naphtha for

VAPOR STOVES

There are two extremes obtained by the use of a **VAPOR STOVE,** namely the best results at the lowest fuel cost.

It will cook anything on the most elaborately prepared menu at a fuel cost of **ONE-HALF CENT per HOUR.**

It will do this in a quick and clean manner and without heating your kitchen five degrees during the day

Vacuum Leather Oil

JOBBERS HANDLE IT

Because

It is Easy to Sell

It is Advertised Best

It is Right for its Purpose

It Gives Perfect Satisfaction

Put up in taking cans, attractively enamelled Handy patent Lambskin-with-wool-on-swob goes with each can, and book "How to Take Care of Leather."

Liberal Trade discounts

For Particulars Apply to

VACUUM OIL CO., Rochester, N. Y.

Or any Branch.

IMPORTS ENTERE DAT NEW YORK FOR CONSUMPTION.

Week ending July 4.

ACID, ACETIC—34 carboys, 4,497 lbs, Roessler & H Chem Co, Ferndene, Hamburg
BENZOIC—30 cks, V Koechl & Co, Statendam, Rotterdam
60 cks, V Koechl & Co, Potsdam, R'dam
OXALIC—45 cks, 42,539 lbs, Kuttroff, P & Co, Kensington, Ant
25 cks, C Bischoff & Co, Kensington, Ant
PHOS—13 cs, 2,624 lbs, Merck & Co, Graf Waldersee, Hamburg
PYRO—5 cs, 250 lbs, G Gennert, Ferndene, Hamburg
ALCOHOL—4 puns, 399 gals, Davis, Lawrence & Co, G Waldersee, Hamburg
10 bbls, 450 gls, F O Boyd, G Waldersee, Hamburg
ALIZARINE—10 cks, V Koechl & Co, Statendam, Rotterdam
40 cks, Kuttroff, Pickhardt & Co, Kensington, Antwerp
68 cks, Farb of Elberfeld Co, Kensington, Antwerp
27 cks, V Koechl & Co, Potsdam, Rotterdam
ASS'T—10 bbls, 483 gls, C A Johnson & Co, Cevic, Liverpool
BLUE—10 cks, 1,120 lbs, Kennedy & Moon, Celtic, Liverpool
ALUMINA HYDRATE—5 cks, 2,006 lbs, C Helmuth, Statendam, Rotterdam
SULPH—44 cks, Roessler & H Chem Co, St Nichols, Antwerp
AMMONIA CARB—5 cks, 2,800 lbs, Fuerst Bros & Co, Cevic, L'pool
MURI—21 cks, 19,166 lbs, S Jordan & Co, Bohemian, Liverpool
17 cks, Roessler & H Chem Co, St Nicholas, Antwerp
16 cks, Roessler & H Chem Co, St Nicholas, Antwerp
60 cks, 11,984 lbs, A Klipstein & Co, Kensington, Antwerp
SULPHATE—500 bgs, 100,000 lbs, W H Mitchell, Tjomo, Sydney
ANILINE COLORS—132 cks, V Koechl & Co, Statendam, Rotterdam
20 pkgs, Geisenheimer & Co, Statendam, Rotterdam
40 pkgs, Sykes & Street, Statendam, R'dam
62 pkgs, Farb of Elberfeld Co, Statendam, Rotterdam
1 ck, Innis & Co, Statendam, Rotterdam
275 cks, Cassella Color Co, Statendam, Rotterdam
20 cks, 10,318 lbs, A Klipstein & Co, Bohemian, Liverpool
15 cks, R Holliday & Sons, Cevic, L'pool
25 cks, V Koechl & Co, Kensington, Ant
93 cks, Kuttroff, P & Co, Kensington, Ant
3 8cks, C Bischoff & Co, Kensington, Ant
2 cks, C Bischoff & Co, K Luise, Bremen
30 pkgs, J J Keller & Co, Kensington, Ant
96 pkgs, Farb of Elberfeld Co, Kensington, Ant
12 pkgs, N Y & B Dyewood Co, Kensington, Ant
37 pkgs, Sykes & Street, Kensington, Ant
7 pkgs, J J Keller & Co, Kensington, Ant
2 cks, J Campbell & Co, Kensington, Ant
87 pkgs, A Klipstein & Co, Kensington, Ant
41 pkgs, A Klipstein & Co, Kensington, Ant
81 cks, V Koechl & Co, Potsdam, R'dam
43 cks, C Georgi, Potsdam, R'dam
2 cks, C Bischoff & Co, K P Wilhelm, Bremen
SALT—19 cks, C Bischoff & Co, Kensington, Antwerp
36 cks, 19,800 lbs, Geisenheimer & Co, Ferndene, Hamburg
103 cks, 30,835 lbs, Berlin Aniline Works, Nicomedia, Stettin
ANTIMONY, OXIDE—10 cks, 5,431 lbs, J C Wiarda, Panama, Bordeaux
REG—50 cks, 33,600 lbs, Hendricks Bros, Menominee, London
33 cks, 22,400 lbs, American Metal Co, Menominee, London
ARCHIL—6 cks, 4,114 lbs, R Holliday & Sons, Cevic, Liverpool
10 bbls, 6,234 lbs, J J Keller & Co, Graf Waldersee, Hamburg
5 cks, W A Ross & Bro, Celtic, Liverpool
ARGOLS—143 bgs, 36,152 lbs, Tartar Chemical Co, Citta di Torino, Naples
62 cks, 65,210 lbs, Tartar Chemical Co, Citta di Torino, Naples
31 bgs, 6,894 lbs, A Klipstein & Co, Panama, Bordeaux
24 cks, 31,932 lbs, C Pfizer & Co, Panama, Bordeaux
1,505 bgs, 306,656 lbs, Am Tartar Co, Panama, Bordeaux
169 cks, 164,964 lbs, Tartar Chemical Co, Panama, Bordeaux
124 bgs, 27,953 lbs, Tartar Chemical Co, Nord America, Genoa
33 cks, 36,375 lbs, Tartar Chemical Co, Nord America, Genoa
74 cks, 111,564 lbs, Tartar Chemical Co, Citta di Palermo, Messina
500 bgs, 110,000 lbs, Tartar Chem Co, Citta di Palermo, Messina
ARSENIC—102 cks, V Koechl & Co, Kensington, Antwerp
100 cks, C Bischoff & Co, Graf Waldersee, Hamburg
BALSAM, CARMINE—22 cs, 2,085 lbs, Jimenez & Escobar, Alleghany, Kingston
COP—1 bl, 116, C Wessells & B, Grangnese, Para
BARIUM, CHLO—45 cks, 44,670 lbs, Kuttroff, P & Co, Graf Waldersee, Hamburg
BARYTA NITRATE—40 kgs, Chemical Imp & Mfg Co, Statendam, Rotterdam
BARYTES, CARB—200 bgs, 44,704 lbs, Gabriel & Schall, Potsdam, R'dam
BAY LEAVES—68 bls, L W & P Armstrong, Talisman, Guadaloupe
BENZOLE, NITRO—100 cs, 12,760 lbs, Magnus & Lauer, Blucher, Hamburg
10 dms, 12,181 lbs, Magnus & Lauer, Graf Waldersee, Hamburg
BISMUTH—6 bbls, 1,656 lbs, McKesson & Robbins, St Paul, S'h'ton
2 cs, Lehn & Fink, Menominee, London
BITUMEN—100 cs, Marrash Bros, Washington, Genoa
BLANC FIXE—26 bbls, 15,518 lbs, L de Jonge & Co, Graf Waldersee, Hamburg
BLEACHING POWDER—325 cks, 404,754 lbs, J L & D S Riker, Cevic, Liverpool
137 bbls, 100,155 lbs, F A Reichard, Kensington, Ant
BRIMSTONE—200 tons, Parsons & Petit, Aggi, Girgenti
600 tons, Parsons & Petit, Aggi, Girgenti
1,400 tons, A S Malcomson, Aggi, Girgenti
BRISTLES—12 cs, 1,600 lbs, Rump & Cattus, St Paul, Southampton
14 cs, 3,646 lbs, E & H Levy, La Savoie, Havre
8 cks, 3,233 lbs, Lewisohn Imp & Tr Co, G Waldersee, Hamburg
BRONZE POWDER—9 cs, 2,846 lbs, Gerstendorfer Bros & Co, K Luise, Bremen
2 cs, 500 lbs, D S Hess & Bro, K Luise, Bremen
1 cs, 400 lbs, J Marsching & Co, K P Wilhelm, Bremen
20 cs, 3,250 lbs, Hensel, B & L, K P Wilhelm, Bremen
24 cs, 5,478 lbs, Baer Bros, K P Wilhelm, Bremen
3 cs, 600 lbs, B Uhlfelder & Co, K P Wilhelm, Bremen
CAFFEINE—3 cs, Schoellkopf, H & H Co, St Paul, Southampton
CALOMEL—10 cs, Schoellkpf, H & H Co, St Paul, Southampton
CANARY SEED—200 bgs, G W Sheldon & Co, Umbria, Liverpool
CARAWAY SEED—250 bgs, Jaburg Bros, Statendam, Rotterdam
CHEMICALS—65 pkgs, Merck & Co, Statendam, Rotterdam
1 cs, Lehn & Fink, Menominee, London
5 cs, Lehn & Fink, Graf Waldersee, Hbg
COMPOUND—3 cs, 300 lbs, C Rockhill, Graf Waldersee, Hamburg
PREP—23 cs, Schering & Glatz, Graf Waldersee, Hamburg
5 demj, C Bischoff & Co, Graf Waldersee, Hamburg
SALT—47 cs, B Levi, Statendam, Rotterdam
55 cks, 65,773 lbs, A Klipstein & Co, Kensington, Antwerp
8 cks, C Bischoff & Co, Graf Waldersee, Hamburg
6 cs, Lehn & Fink, Menominee, London
CHINA CLAY—200 cks, 99 tons, Moore & Munger, Cevic, Liverpool
192 cks, 96 tons, J D McGlincey, Bohemian, Liverpool
130 cks, 65 tons, J Knight & Co, Bohemian, Liverpool
CINCHONA BARK—16 pkgs, 2,149 lbs, Bichels & Techow, Statendam, Rotterdam
COAL TAR PREP—60 cks, V Koechl & Co, Statendam, Rotterdam
4 cks, V Koechl & Co, Potsdam, Rotterdam
PROD—4 cks, Geisenheimer & Co, Statendam, Rotterdam
COBALT OXIDE—5 cs, Roessler & H Chem Co, St Nicholas, Antwerp
COCOA BUTTER—25 bgs, 5,108 lbs, Knauth, N & K, Statendam, Rotterdam
120 bgs, 24,376 lbs, J Jeidell & Son, Statendam, Rotterdam
40 cs, 4,480 lbs, Habicht, Braun & Co, Umbria, Liverpool
50 cs, 11,200 lbs, A El Reimann, Menominee, London
10 cs, 1,200 lbs, Binney & Smith, Blucher, Hamburg
10 cs, David E Green & Co, Potsdam, Rdam
COLCATHAR—6 pkgs, Hemingway & Co, Menominee, London
COLORS—62 pkgs, A W Smith, Statendam, Rotterdam
2 cs, J Marsching & Co, La Savoie, Havre
10 cks, J W Coulston, La Savoie, Havre
180 cks, Gabriel & Schall, K Luise, Bremen
2 cks, Fuchs & Lang Mfg Co, Graf Waldersee, Hamburg
30 cks, J W Coulston & Co, Ferndene, Hbg
CORKS—35 bls, 2,945 lbs, J Torres, Lucania, Liverpool
6 bls, 750 lbs, H Cahn, Lucania, Liverpool
CORKWOOD—115 bls, 21,483 lbs, F G Strohmeyer & Co, Graf Waldersee, Hamburg
50 bls, Gudewell & B, Graf Waldersee, Hbg
CREOSOTE—25 cks, Merck & Co, Graf Waldersee, Hamburg
CROCUS—10 kgs, 1,444 lbs, R J Waddell & Co, Hindoo, Hull
CUDBEAR—4 cks, 480 lbs, Sykes & Street, Statendam, Rotterdam
CUTTLEFISH BONE—20 straps, 1,546 lbs, Parke, Davis & Co, Pawnee, Trieste
DIVI DIVI—51 bgs, 2,500 lbs, De Sola, Lobo & Co, Prins Wm I, Curacoa
DOGGRASS—200 bgs, 22,500 lbs, Bichels & Techow, Graf Waldersee, Hamburg
DROP BLACK—5 kegs, 700 lbs, R J Waddell & Co, Hindoo, Hull
DRUGS—3 cs, Lehn & Fink, Graf Waldersee, Hamburg
DYEWOOD EXT—40 cs, B P Ducas & Co, Cevic, Liverpool
5 cks, 2,626 lbs, Kuttroff, P & Co, Kensington, Antwerp
40 cks, 18,616 lbs, Sykes & Street, La Bretagne, Havre
FENNEL SEED—2 bls, 523 lbs, J L Hopkins & Co, Bohemian, Liverpool
FISH BERRIES—5 bgs, 550 lbs, J L Hopkins & Co, Pawnee, Trieste
FISH SOUNDS—20 cs, W Zinsser & Co, Menominee, London
FORMALDEHYDE—150 carboys, 25,161 lbs, Merck & Co, Menominee, London
FULLER'S EARTH—675 bgs, 67½ tons, L A Saloman & Bro, St Paul, Southampton
FUSTIC—37,576 lbs, H Marquardt & Co, Yucatan, Vera Cruz
EXT—25 cks, 12,740 lbs, A de Ronde & Co, Celtic, Liverpool
GALLS—5 bgs, 913 lbs, J L Hopkins & Co, Pawnee, Trieste
GELATINE—25 cs, J Pallitz, Statendam, Rotterdam
10 cs, 1,003 lbs, Zinkelsen & Co, Statendam, Rotterdam
56 cs, 6,313 lbs, P Puttmann, Potsdam, Rotterdam
GENTIAN ROOT—49 bls, Peek & Velsor, Bohemian, Liverpool
GINGER—108 bgs, Frame, Alston & Co, Cevic, Liverpool
64 bgs, Frame, Alston & Co, Minneapolis, London
10 bgs, Macy & Dunham, Valencia, Kingston
2 bgs, 329 lbs, C Wessels & Bro, Valencia, Kingston
51 bgs, 6,492 lbs, Macy & Dunham, Valencia, Kingston

A. Klipstein & Company

122 Pearl Street, NEW YORK

CHEMICALS AND DYESTUFFS

AGENTS FOR.

ANILINE COLORS

Made by the Society of Chemical Industry BASLE.

OXALIC ACID

BRANCH HOUSES:

BOSTON, 283-285 Congress St. PHILADELPHIA, 50-52 N. Front St. CHICAGO, 136 Kinzie St.
PROVIDENCE, R. I., 13 Mathewson St.
HAMILTON, ONT., Catharine St. MONTREAL, 17 Lemoine St.

136 bgs, 22,247 lbs, Macy & Dunham, Valencia, Kingston
229 bgs, 31,780 lbs, J E Kerr & Co, Valencia, Kingston
15 bbls, 1,945 lbs, A S Lascelles & Co, Valencia, Kingston
12 bbls, 1,577 lbs, Gillespie Bros & Co, Valencia, Kingston
49 bbls, 6,456 lbs, A S Lascelles & Co, Valencia, Kingston

GLASS, PLATE—18 cs, J Kahn, Kensington, Antwerp
30 cs, Semon Bache & Co, Br Prince, Ant
13 cs, Zahn & Bowley, Potsdam, Rdam

WINDOW—294 cs, Van Horne, Griffin & Co, St Nicholas, Antwerp
561 cs, J Fitzpatrick & Co, St Nicholas, Antwerp
80 cs, R S Morrison, Cevic, Liverpool
1,179 cs, Semon Bache & Co, Br Prince, Antwerp
666 cs, Pittsburgh Plate Glass Co, Kensington, Antwerp
309 cs, Van Horne, Griffin & Co, Br Prince, Antwerp

GLUE—100 bbls, 10,803 lbs, A E Reimann, Bohemian, Liverpool
63 cks, 67,531 lbs, Booth & Co, Hindoo, Hull
24 cks, American Express Co, St Nicholas, Antwerp
12 bbls, Milligan & Higgins Glue Co, Br Prince, Antwerp

GLYCERINE—30 cks, 32,000 lbs, A Klipstein & Co, Panama, Bordeaux
123 dms, 140,558 lbs, Marx & Rawolle, Menominee, London

GREASE—25 bbls, A de Ronde & Co, Cevic, Liverpool

LICORICE PASTE—10 cs, 1,944 lbs, E Utard, Panama, Bordeaux
ROOT—20 bls, 4,400 lbs, J L Hopkins & Co, Bohemian, Liverpool
16 bls, 4,547 lbs, J L Hopkins & Co, Bohemian, Liverpool

LIME, CITRATE—40 cks, 44,408 lbs, C Pfizer & Co, Citta di Palermo, Messina
JUICE—2 pkgs, Middleton & Co, Fontabelle, Dominica
5 puns, Jas Lee & Co, Valencia, St Ann's Bay

LOGWOOD—38 1-3 tons, J W Wilson & Co, Valencia, Bk River
EXT—10 bbls, 5,542 lbs, J J Keller & Co, Menominee, London

LONDON PURPLE—15 bbls, Hemingway & Co, Menominee, London

MACE—8 cs, 1,105 lbs, Gillespie Bros & Co, Maracas, Trinidad

MAGNESIA—55 cs, G Servetti, Citta di Torino, Genoa

MAGNESITE CALC—5,475 bgs, 533,670 lbs, Knauth, N & K, Aquileja, Trieste

MEDICAL, BARK—39 bls, Parke, Davis & Co, St Paul, Southampton
ROOTS—69 pkgs, Peek & Velsor, Graf Waldersee, Hamburg
16 bls, Parke, Davis & Co, Pawnee, Trieste

SEEDS—13 cs, 2,223 lbs, Dodge & Olcott, St Paul, Southampton
119 bgs, 13,061 lbs, Dodge & Olcott, St Paul, Southampton
3 pkgs, Peek & Velsor, Graf Waldersee, Hamburg
17 bgs, Parke, Davis & Co, Pawnee, Trieste

MICA—32 cs, 5,482 lbs, E Munsell & Co, Border Knight, Calcutta

LEMON—300 cs, 7,500 lbs, C Rockhill, Citta di Torino, Messina
50 cs, 1,250 lbs, C Rockhill, Citta di Torino, Messina
110 cs, 2,750 lbs, Dodge & Alcott, Confidenza, Messina
22 cs, 550 lbs, Crandal & Godley Co, Citta di Palermo, Messina

LIMES—2 cs, Jas Lee & Co, Valencia, St Anns Bay

OLIVE FOOTS—100 bbls, 4,949 gals, Oil Seeds Pressing Co, Carmelite, Palermo
100 bbls, 5,379 gals, Nittner & Slavitz, North America, Naples

ORANGE—4 cs, 100 lbs, Dodge & Olcott, Confidenza, Messina
3 cs, 75 lbs, Crandal & Godley Co, Citta di Palermo, Messina

PETROLEUM—20 cks, 7,200 lbs, Blivin & Carrington, St Nicholas, Antwerp

RAPE SEED—20 bbls, 931 gals, Manhattan Oil Co, Graf Waldersee, Hamburg

ROSE—1 cs, Wells, Fargo & Co, St. Paul, Southampton
1 cs, Lehn & Fink, St. Louis, London

SESAME—25 hhds, 10,479 lbs, G Lueders & Co, Aller, Genoa

WOOD—112 bbls, 44,246 lbs, Schoellkopf H H & Co, Graf Waldersee, Hamburg

OLEO STEARINE—50 cks, 44,073 lbs, Swift & Co, Cevic, Liverpool
122 bgs, 22,000 lbs, E S Kuh, Ferndene, Hamburg
85 cks, 46,416 lbs, Central Lard Co, Menominee, London

OPIUM—15 cs, 1,631 lbs, McKesson & Robbins, St Paul, Southampton

OXFORD BLUE—10 cs, 2,160 lbs, J A Hayes, Menominee, London

OZOKERITE—260 bgs, 22,319 lbs, C Morningstar, Nicomedia, Stettin

PALM STEARINE—107 bbls, 44,843 lbs, W A L Vogt, Bohemian, Lpool
50 bbls, 27,156 lbs, J A & W Bird & Co, Hindoo, Hull
46 bbls, 31,891 lbs, J A & W Bird & Co, St Nicholas, Ant
66 cks, 47,611 lbs, W A L Vogt, Menominee, London
100 cks, 56,225 lbs, W A L Vogt, Graf Waldersee, Hbg

PARAFFINE—25 bbls, 15,417 lbs, Schoellkopf & Co, Graf Waldersee, Hbg

PARIS BLACK—25 cks, 9,922 lbs, F. Schroeder, Potsdam, Rdam

PEPPER—100 bgs, 4,809 lbs, Frame, Alston & Co, Statendam, Rdam
500 bgs, 53,193 lbs, D Cruikshank, Statendam, Rdam
655 bgs, 107,893 lbs, D A Shaw & Co, Menominee, London

SHELLS—148 bgs, Frame, Alston & Co, Menominee, London

RED LEAD—34 cks, 22,178 lbs, G A & E Meyer, Statendam, Rotterdam
20 cks, 13,816 lbs, G A & E Meyer, Potsdam, Rotterdam

RESORCIN—5 cks, V Koechl & Co, Statendam, Rotterdam
10 cks, V Koechl & Co, Potsdam, Rdam

SAFFRON—1 cs, 100 lbs, Parke, Davis & Co, La Savoie, Havre

SARSAPARILLA—59 bls, 13,088 lbs, L N Chemidlin, Niagara, Tampico

SENNA—25 bls, Parke, Davis & Co, Columbia, Glasgow

SODA, ASH—32 cks, 56,746 lbs, Wing & Evans, Celtic, Liverpool
CAUSTIC—24 dms, 18,000 lbs, E Hills' Son & Co, Celtic, Liverpool
SILICATE—74 cks, 56,416 lbs, Colgate & Co, Cevic, Liverpool

SPONGE—10 pkgs, A Moses, Sons & Co, St Paul, Southampton
9 bls, A Isaacs & Co, Yucatan, Havana
20 bls, National Sponge & C Co, Antilla, Havana
30 bls, Lasker & Bernstein, Morro Castle, Havana
25 bls, A Moses, Sons & Co, Morro Castle, Havana
35 bls, A Isaacs & Co, Seguranca, Nassau
7 bls, Huencke Sponge Co, Seguranca, Nassau
78 bls, Lasker & Bernstein, Seguranca, Nassau

STRONTIA, NITRATE—60 kegs, Chemical Imp & Mfg Co, Statendam, Rotterdam

STORAX—5 cs, 462 lbs, A U Andrus & Co, Aquileja, Trieste

ST JOHN'S BREAD—164 bgs, 34,251 lbs, C W Jacobs & Allison, Pawnee, Trieste

SUMAC—140 bgs, 22,400 lbs, A Klipstein & Co, Confidenza, Palermo
938 bgs, 150,080 lbs, Leber & Meyer, Citta di Palermo, Palermo

TALLOW—62 pps, 55,016 lbs, Southern Cotton Oil Co, Bohemian, Liverpool
142 cks, 111,624 lbs, Southern Cotton Oil Co, Menominee, London
200 cks, 157,774 lbs, Central Lard Co, Menominee, London

TARTAR EMETIC—10 cks, F Bredt & Co, Graf Waldersee, Hamburg

TOLUOLE BINITRO—1 ck, 57 lbs, R Holliday & Sons, Cevic, Liverpool

TONKA BEANS—60 cks, 16,792 lbs, American Trading Co, Maracas, Trinidad

TURPENTINE, VENICE—20 cs, 1,852 lbs, A U Andrus & Co, Aquileja, Trieste

ULTRAMARINE—57 pkgs, 14,968 lbs, Kuttroff, Pickhardt & Co, Statendam, Rdam

VANILLA BEANS—4 cs, 541 lbs, American Trading Co, Yucatan, Tampico
6 cs, G Lueders & Co, La Savoie, Havre

Cream of Tartar Tartaric Acid

GUARANTEED 99—100 Per Cent. Pure.

TARTAR CHEMICAL COMPANY, 47 Cedar St., N. Y.

WOOL—100 cks, 36,936 lbs, Swan & Finch Co, K Luise, Bremen
154 cks, 59,125 lbs, Swan & Finch Co, Umbria, Liverpool

GRAPHITE—212 cks, 225,402 lbs, W H Dumont, Graf Waldersee, Hamburg
106 cks, C B Richards, Graf Waldersee, Hamburg

GUM, ALSACE—100 bgs, 16,535 lbs, F Bredt & Co, Kensington, Antwerp

ANIMI—15 cs, W H Scheel, St Paul, Shton

ARABIC—135 bls, 49,982 lbs, Parke, Davis & Co, St Paul, Southampton
60 seroons, 20,384 lbs, Parke, Davis & Co, Citta di Torino, Messina
107 cs, 36,900 lbs, Thurston & Braidich, Pawnee, Trieste

COPAL—25 cs, 6,634 lbs, D A Shaw & Co, Menominee, London

DAMAR—125 bgs, 18,321 lbs, A Mason, Rotterdam, Rotterdam
10 cs, 2,294 lbs, W H Scheel, Statendam, Rotterdam
300 cs, 40,880 lbs, L C Gillespie, Border Knight, Calcutta

KAURI—10 cs, W H Scheel, St Paul, Shton

SENEGAL—150 bls, 33,000 lbs, E J Arbib & Co, St Paul, Southampton
100 bls, 22,046 lbs, Thurston & Braidich, Lucania, Liverpool

TRAG—28 bls, 4,234 lbs, Parke, Davis & Co, St Paul, Southampton
41 cs, Thurston & Braidich, Minnehaha, London

HENBANE LEAVES—5 bls, 1,017 lbs, J L Hopkins & Co, Pawnee, Trieste

INDIGO—10 cks, V Koechl & Co, Statendam, Rotterdam
5 chts, E R Durkee & Co, St Paul, S'h'ton
10 cks, V Koechl & Co, Potsdam, Rotterdam

IRON OXIDE—21 cks, 11,098 lbs, G A & E Meyer, Statendam, Rotterdam
80 cks, Hemingway & Co, Menominee, London

LAMPBLACK—22 cks, E O Earle, Rotterdam, Rotterdam
10 cks, 1,570 lbs, Kuttroff, Pickhardt & Co, Statendam, Rotterdam
19 cks, 11,459 lbs, J W Coulston & Co, Ferndene, Hamburg

LANOLINE—60 cs, 8,000 lbs, V Koechl & Co, Graf Waldersee, Hamburg

LEAD, NITRATE—20 cks, 11,424 lbs, Jas Lee & Co, Columbia, Glasgow

121 cs, 9,640 lbs, E Munsell & Co, Border Knight, Calcutta
2 cs, 215 lbs, E Munsell & Co, Oscar II, Copenhagen
14 cs, 1,972 lbs, E Munsell & Co, Menominee, London

MUSK—12 cs, 2,772 lbs, Dodge & Olcott, Coastwise, Hamburg

NAPHTHOL—25 cks, V Koechl & Co, Statendam, Rotterdam
5 cks, C Bischoff & Co, Graf Waldersee, Hamburg
50 cks, V Koechl & Co, Potsdam, Rdam

NUTMEGS—20 pkgs, 3,189 lbs, Gillespie Bros & Co, Maracas, Trinidad
19 pkgs, 2,708 lbs, Frame, Alston & Co, Maracas, Trinidad

NUX VOMICA—133 bgs, 22522 lbs, Stallman & Fulton Co, Rotterdam, Rotterdam
297 bgs, 40,180 lbs, McKesson & Robbins, Rotterdam, Rotterdam
200 bgs, 33,000 lbs, Perry, Ryer & Co, Rotterdam, Rotterdam

OCHER—41 cks, 27,769 lbs, J W Coulston & Co, Panama, Bordeaux

OIL, ALMOND—3 cs, 300 lbs, Zinkeisen & Co, Aller, Genoa
BERGAMOT—30 cs, 750 lbs, C Rockhill, Citta di Torino, Messina
50 cs, 1,250 lbs, Euler & Robeson, Confidenza, Messina
CAMPHOR—60 cs, 4,200 lbs, C Rockhill, Graf Waldersee, Hamburg
COCOANUT—10 bbls, R Fabian & Co, Olindo, Baracoa
58 pkgs, R Crooks & Co, Celtic, Liverpool
ESS'L—32 cs, Magnus & Lauer, La Savoie, Havre
3 cs, P R Dreyer, La Savoie, Havre
4 cs, G Lueders & Co, La Savoie, Havre
21 cs, Leeburger Bros, Aller, Genoa
3 cs, Lehn & Fink, Menominee, London
FUSEL—10 dms, 11,154 lbs, Schoellkopf, H & H Co, Graf Waldersee, Hamburg
56 dms, 30,570 lbs, Schoellkopf, H & H Co, Ferndene, Hamburg
5 cks, 4,405 lbs, Maas & Waldstein, Ferndene, Hamburg
40 cks, 42,103 lbs, C Cooper & Co, Ferndene, Hamburg

LAVENDER—55 cs, 9,075 lbs, Euler & Robeson, Aller, Genoa
10 cs, Leeburger Bros, Aller, Genoa
4 cs, M L Grossmith, Aller, Genoa
6 cs, M L Grossmith, Aller, Genoa

PERSIAN BERRY CARMINE—5 cks, 2,655 lbs, Kultroff, P & Co, Kensington, Ant
EXTRACT—5 bbls, 2,734 lbs, J J Keller & Co, Kensington, Ant

PIMENTO—212 bgs, 27,801 lbs, C Wessels & Bro, Valencia, Kingston
48 bgs, 6,047 lbs, Macy & Dunham, Valencia, Kingston
44 bgs, 6,544 lbs, Macy & Dunham, Valencia, Kingston
93 bgs, 11,160 lbs, J E Kerr & Co, Valencia, Kingston
115 bgs, Smith & Millar, Valencia, Kingston
97 bgs, 13,767 lbs, A S Lascelles & Co, Valencia, Kingston
9 bgs, 1,037 lbs, Jas Lee & Co, Valencia, Kingston
104 bgs, 15,609 lbs, Gillespie Bros & Co, Valencia, Kingston
96 bgs, 11,935 lbs, A S Lascelles & Co, Ereca, Kingston

PITCH, COAL TAR—500 cks, 292,212 lbs, Barrett Mfg Co, Menominee, London

POMADE—2 cs, E H Burr, La Bretagne, Havre

POTASH, BICARB—10 cks, Roessler & H Chem Co, St Nicholas, Stettin
CARB—48 bbls, 52,287 lbs, F Behrend, Graf Waldersee, Hbg
15 cks, 20,710 lbs, F Behrend, Kensington, Ant

CAUSTIC—75 dms, 31,149 lbs, A Klipstein & Co, Graf Waldersee, Hbg

MURI—1,000 bgs, 224,000 lbs, Battelle & Renwick, K Luise, Bremen

PRUSS—28 cks, 22,533 lbs, Roessler & H Chem Co, Graf Waldersee, Hbg

POTATO FLOUR—100 bgs, 22,046 lbs, Wolf, Sayer & Heller, Graf Waldersee, Hbg

QUEBRACHO EXT—600 bgs, 66,138 lbs, A Klipstein & Co, Graf Waldersee, Hamburg

S cs, 1,157 lbs, Dodge & Olcott, St Paul, Southampton
1 cs, 39 lbs, H Marquardt & Co, Vidar, Tuxpan
6 cs, Graham, Hinkley & Co, Havana, Vera Cruz
43 pkgs, 6,707 lbs, H Marquardt & Co, Havana, Vera Cruz

VARNISH—10 cs, 200 gals, Pomeroy & Fisher, Menominee, London

VENETIAN RED—202 bbls, 72,224 lbs, J Lee Smith & Co, Cevic, Liverpool
90 bbls, 30,240 lbs, R J Waddell & Co, Hindoo, Hull
5 bbls, Hemingway & Co, Menominee, Ldon

VERMILION—4 bbls, A W Smith, Statendam, Rotterdam

WASH BLUE—15 bbls, 1,650 lbs, C A Johnson & Co, Cevic, Liverpool

WAX, BEE'S—3 cks, 616 lbs, Graham, Hinkley & Co, Yucatan, Tuxpan
1 ck, 249 lbs, J W Wilson & Co, Valencia, Black River
CARNAUBA—249 bgs, 10,330 lbs, F B Ross & Co, Grangense, Para
CERESIN—60 bgs, F G Strohmeyer & Co, Graf Waldersee, Hamburg
150 bgs, 30,000 lbs, Smith & Nichols, Graf Waldersee, Hamburg
PARAFFINE—392 bgs, 79,400 lbs, Smith & Nichols, Cevic, Liverpool
VEGETABLE—5 bgs, 1,840 lbs, C Wessels & Bro, Seguranca, Santiago

XYLIDINE—5 dms, 4,989 lbs, Berlin Aniline Works, Nicomedia, Stettin

ZINC OXIDE—100 cks, 44,092 lbs, H W Henning & Son, Ferndene, Hamburg
30 cks, 13,228 lbs, J W Coulston & Co, Kensington, Antwerp
130 cks, 25,353 lbs, G A & E Meyer, Potsdam, Rotterdam

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WAREHOUSED.

ALCOHOL—10 bbls, 447 gals, F O Boyd, Graf Waldersee, Hamburg
ANILINE COLORS—2 cks, C Bischoff & Co, F der Grosse, Bremen
58 cks, Farb of Elberfeld Co, Kensington, Antwerp
BRISTLES—2 cks, 1,214 lbs, H Kroehl, Graf Waldersee, Hbg
8 cks, 3,801 lbs, H Conheim, Graf Waldersee, Hamburg
CANARY SEED—300 bags, 79,200 lbs, J D Nordlinger, Cymric, Lpool
COCOA BUTTER—60 bags, 11,007 lbs, J Jeldell & Son, Statendam, Rdam
FORMALDEHYDE—50 cbys, Roessler & H Chem Co, Minneapolis, London
GELATINE—20 cs, 2,240 lbs, J Pollitz, Statendam, Rdam
GLUE—200 bags, 44,092 lbs, S Isaacs & Co, Statendam, Rdam
GUM CHICLE—29 bags, 5,538 lbs, H Marquardt & Co, Vidar, Tuxpan
171 bags, 30,135 lbs, H Marquardt & Co, Yucatan, Vera Cruz
GUM—10 bbls, 8,020 lbs, F Schuebel, Kensington, Antwerp
LOGWOOD EXT—5 cks, 2,903 lbs, J Campbell & Co, Cevic, Lpool
25 bbls, 13,089 lbs, J J Keller & Co, Kensington, Ant
MEDICAL PREP—10 cs, E Levi, Statendam, Rotterdam
MICA—23 cs, 2,793 lbs, Sills-Eddy Mica Co, St Paul, London
183 cs, 10,532 lbs, General Electric Co, Minnehaha, London
96 cs, 13,138 lbs, General Electric Co, Moltke, Hbg
70 cs, 10,010 lbs, E Munsell & Co, Border Knight, Calcutta
OIL, CODLIVER—25 bbls, 750 gals, Schieffelin & Co, Colorado, Hull
50 bbls, 1,500 gals, Parke, Davis & Co, Colorado, Hull
LINSEED—25 bbls, 1,379 gals, G A & E Meyer, Colorado, Hull
OPIUM—8 cs, 1,254 lbs, Dodge & Olcott, St Paul, London
QUEBRACHO EXT—1,500 bags, 16,534 lbs, A Klipstein & Co, Coronda, Buenos Ayres
SODA CAUSTIC—100 dms, 75,000 lbs, E Hills Son & Co, Hindoo, Hull
SPONGE—11 bls, A Isaacs & Co, Monterey, Havana
16 bls, Nat Sponge & Chamois Co, Antilla, Nassau
27 bls, Lasker & Bernstein, Morro Castle, Havana
32 bls, A Isaacs & Co, Seguranca, Nassau

Withdrawals from Bond.

Week ending July 4.

Alcohol, cs	3
Aniline colors, cks	111
Aniline colors, bbls	30
Aniline colors, kegs	23
Bristles, cs	44
Bronze powder, cs	1
Chemical salt, cs	6
Corks, bls	102
Dextrine, bags	250
Glue, bags	21
Glue, cks	12
Glue, bbls	7
Gum chicle, bales	47
Gum chicle, bags	153
Logwood ext, cks	48
Mica, cs	4
Ocher, cks	1
Opium, cs	8
Persian berry carmine, bbls	2
Potash, chlo, cks	200
Cyanide, cs	355
Soap, castile, cs	5
Soda caustic, cks	36
Hypo, cks	109
Sago flour, bags	100
Sponge, bls	35

Boston Imports.

ACID—2 drs, Lever Bros, Ltd, New England, Liverpool
CARBOLIC, CRYSTALS—24 pkgs, Anglian, London
OXALIC—30 cks, Philadelphia, L'pool
ALIZARINE—29 cks, Beach & Co, Anglian, London
ANILINE COLOR—2 cks, W N Proctor & Co, Philadelphian, Liverpool
7 kgs, J A & W Bird & Co, Philadelphian, Liverpool
OIL—10 drs, Read, Halliday & Sons, Consuelo, Hull
SALT—41 cks, J A & W Bird & Co, Philadelphian, Liverpool
BARYTES, CARB—120 cks, R F Downing & Co, Consuelo, Hull
BRISTLES—1 cs, Xenia, Copenhagen
CARDAMOMS—30 pkgs, Anglian, London
CASTOR SEED—751 bgs, Brown Bros & Co, New England, Liverpool
CHALK—200 tons, Anglian, London
CHINA CLAY—300 cks, Baring Bros & Co, Philadelphian, Liverpool
350 cks, Amer Ex Co, Philadelphian, L'pool
348 cks, Baring Bros & Co, New England, Liverpool
300 cks, Morey & Co, New England, L'pool
150 cks, L A Solomon & Bro, New England, Liverpool
115 cks, Champion International Co, Anglian, London
COTTONSEED—32 bgs, Frederick Nell, Consuelo, Hull
COLOR—1 bx, E Hills' Sons Co, Consuelo, Hull
1 cs, Jas E Ward & Co, Consuelo, Hull
5 bbls, Hugh Wright & Co, Philadelphian, Liverpool
CREOSOTE—500 cks, Anglian, London
DEXTRINE—100 bgs, Lazard Freres, Xenia, Copenhagen
200 bgs, Consuelo, Hull
GLASS PLATE—2 cs, Boston Pl & W Glass Co, Philadelphian, Liverpool
4 cs, New England, L'pool
GLUE—1 ck, A Ashworth, New England, Liverpool
102 cks, Lazard Bros, Consuelo, Hull
20 cks, 10 lbs, Chas Townsend, Consuelo, Hull
GREASE—16 bbls, F L Young & Kimball, Consuelo, Hull
60 cks, Consuelo, Hull
SOD—25 cks, Otto Hann & Co, Consuelo, Hull
IRON SULPHIDE—502 bags, Roessler & Hasslacher Chem Co, Consuelo, Hull
OIL—25 bbls, Anglian, London
COD LIVER—10 bbls, Schieffelin & Co, Consuelo, Hull
2 bbls, Sanderson & Son, Consuelo, Hull
LINSEED—10 bbls, Jas E Ward & Co, Consuelo, Hull
OLIVE—3 cks, A Olivio, Cambroman, Naples
15 cks, Cambroman, Genoa
50 bbls, 50 cks, Consuelo, Hull
1 ck, L La Roca, Consuelo, Hull
6 bbls, A Bicchiere, Consuelo, Hull
PALM—117 cks, New England, Lpool
121 cks, 226 butts, 45 puns, 15 bbls, Robert Everett, Alice J Crabtree, Pam Pam, W C A
RECOVERED, OLIVE—30 bbls, L M Crane & Co, Philadelphian, Lpool
PARAFFINE—125 cs, Lazard Bros, Consuelo, Hull
PAINT—1 ck, Consuelo, Hull
30 cks, 40 kegs, 2 cs, Jas E Ward & Co, Consuelo, Hull
PEPPER—50 bags, Anglian, London
PITCH—501 bbls, 300 cks, 27 cs, Anglian, London
POTASH—25 bls, 9 cks, Consuelo, Hull
QUASSIA WOOD—3,400 lbs, United Fruit Co, Ad Sampson, Port Antonio, Jam
QUEBRACHO EXTRACT—50 bbls, C A Spencer, Cambroman, Naples
RED, EARTH—5 cks, Sherwin-Williams Co, Consuelo, Hull
INDIAN—1 ck, Consuelo, Hull
5 bbls, 25 kegs, I L Lavenburg, Consuelo, Hull
OXIDE—5 cks, Toch Bros, Consuelo Hull
50 cks, J Lee Smith & Co, Consuelo, Hull
PERSIAN—4 cks, G A & E Meyer, Consuelo, Hull
TURKEY—1 ck, Sherwin-Williams Co, Consuelo, Hull
TUSCAN—3 cks, Sherwin-Williams Co, Consuelo, Hull
SODA, ARSENIATE—5 cks, Dom Cot Mills Co, Philadelphian, Lpool
SULPHUR—2,002 bags, Philadelphian, Lpool
SUMAC, EXTRACT—25 cks, B D Webber, Philadelphian, Lpool
25 bbls, C A Spencer, Cambroman, Naples
TURPENTINE—100 bbls, Consuelo, Hull
VARNISH—11 cs, 6 drs, Carpenter-Morton Co, Philadelphian, Lpool
1 cs, Amer Ex Co, New England, Lpool
WAX—18 bls, J B Moors & Co, Consuelo, Hull
WHITING—200 bags, 50 cks, J Lee Smith & Co, Consuelo, Hull
WHITE LEAD—150 pkgs, E & F King & Co, Anglian, London
100 kegs, G A & E Meyer, Consuelo, Hull

Philadelphin Imports.

ALUM, CHROME—25 cks, Kuttroff, P & Co, Penniand, Ant
AMMONIA, MURIATE—20 cks, Belgenland, Lpool
SAL—20 bbls, A. Klipstein & Co, Penniand, Ant
ANILINE COLOR—22 bbls, Andreykovicz & Dunk, Penniand, Ant
135 cks, Berlin Aniline Wks, Alexandria, Hbg
SALT—74 bbls, B P Ducas & Co, Penniand, Ant
ARSENIC—100 cks, Ferndene, Hbg
BARYTES—300 bgs, Gabriel & Schall, Alexandria, Hbg
BLEACH—82 cks, Fergusson Bros, Penniand, Ant
120 drs, O S Janney & Co, Alexandria, Hbg
CHEMICALS—16 cks, A Klipstein & Co, Alexandria, Hbg
CHINA CLAY—143 tons, 450 cks, Moore & Munger, Planet Mars, Avonmouth
200 bgs, J B Moore & Co, Belgenland, Lpool
300 cks, Perkins, Goodwin & Co, Belgenland, Lpool
CLAY—248 tons, Moore & Munger, Planet Mars, Avonmouth
60 cks, F A Reichard, Planet Mars, Avonmouth
CORK SHAVINGS—1,300 bls, Alexandria, Hbg
CORKWOOD—2,979 bls, Glengoil, Marseilles
DYESTUFFS—3 bbls, 21 pkgs, Penniand, Ant
2 pkgs, A F Bornot, Glengoil, Marseilles
FORMALDEHYDE—200 cbys, Ferndene, Hbg
FULLER'S EARTH—1,000 bgs, Planet Mars, Avonmouth
LICORICE ROOT—750 tons, Mellor & Rittenhouse, Georgia, Batoum
LOGWOOD—608 tons, Sharpless D E Co, Helen G Moseley, Black River
100 tons, J W Wilson, Black Bird, Savanna la Mar
MANGANESE—25 cks, Louis H Meyer, Alexandria, Hbg
OCHER—110 cks, Glengoil, Marseilles
OIL, PALM—45 cks, Belgenland, Lpool
228 hhds, Alexandria, Hbg
PALM KERNEL—597 bbls, Ferndene, Hbg
SULPHUR—60 bbls, Glengoil, Leghorn
PARAFFINE, LIQ—10 bbls, Penniand, Ant
POTASH—31 bbls, A Klipstein & Co, Penniand, Ant
18 cks, Penniand, Ant
20 cks, Alexandria, Hbg
CARBONATE—18 cks, Penniand, Ant
MURIATE—750 bgs, Alexandria, Hbg
SODA—24 cks, Fergusson Bros, Alexandria, Hbg
ZINC DUST—15 cks, Alexandria, Hbg

Baltimore Imports.

ALUMINA, SULP—176 cks, Ohio, Rdam
AMMONIA, MURIATE—5 cks, Rowanmore, Lpool
ANLINE COLOR—1 bbl, Rowanmore, Lpool
OIL—10 drs, Rowanmore, Lpool
BLEACH—26 cks, Rowanmore, Lpool
CHINA CLAY—400 cks, Rowanmore, Lpool
CORKWOOD—17 bls, Neckar, Bremen
GLYCERINE—3 cs, Europe, London
GUM ASAFOETIDA—28 cs, Europe, London.
KAINIT—999 tons, Brandenburg, Bremen
500 tons, Neckar, Bremen
MUSTARD SEED—100 bgs, Ohio, Rdam
OIL, HAARLEM—20 cs, Ohio, Rdam
TAR—120 cks, Ohio, Rdam
POTASH, MURIATE—1,000 bgs, Neckar, Bremen
ROSIN—17 cs, Rowanmore, Lpool
TAPIOCA FLOUR—768 bgs, Rowanmore, Lpool
ZINC OXIDE—1 cs, Europe, London

Newport News Imports.

ACID, BENZOIC—23 cks, Wyandotte, London
CARBOLIC—167 cks, Wyandotte, London
FULLER'S EARTH—500 bgs, L A Salomon & Bro, Wyandotte, London
200 bgs, Hammill & Gillespie, Wyandotte, London
GLYCERINE—110 pkgs, Wyandotte, London
OIL, COCOANUT—62 pkgs, Colby & Co, Wyandotte, London
66 pkgs, Knauth, N & K, Wyandotte, London
OLIVE—12 cks, Meyers Bros Drug Co, Wyandotte, London

New Orleans Imports.

BARK—5 bls, Chalmette, Havana
CREOSOTE—1,000 bbls, Jamaican, London
FULLER'S EARTH—1,000 bgs, Jamaican, London
GREASE—20 cs, Jamaican, Lpool
POTASH, CYANIDE—250 cs, Jamaican, London
CAUSTIC—60 drs, Jamaican, Lpool
WAX—100 bgs, Jamaican, Lpool

San Francisco Imports.

AMMONIA, SULP—1,937 bgs, Jane, Hull
FERTILIZER—2,050 bgs, Balfour, G & Co, Marguerte Miraband, Ant
OIL, COCOANUT—550 cs, Sononia, Sydney
PAINT—15 cs, W P Fuller & Co, Jane, Hull
POTASH—100 drs, Balfour, G & Co, Marguerte Miraband, Ant

Montreal Imports.

AMMONIA, CARB—10 kegs, Kastalia, Glasgow
CHEMICALS—3 cs, Frisia, Hbg
CHLOROFORM—3 cs, Frisia, Hbg
COLOR—64 cs, Frisia, Hbg
DEXTRINE—100 bgs, Frisia, Hbg
EPSOM SALTS—200 bgs, 100 bbls, Kastalia, Glasgow
GLAUBER SALTS—100 bgs, Frisia, Hbg
LOGWOOD EXT—10 cks, Kastalia, Glasgow
100 bgs, 4 cks, Someranian, Glasgow
OIL, COTTONSEED—20 bbls, Escalona, Glasgow
PALM—11 cks, Frisia, Hbg
RAPE—10 bbls, Escalona, Glasgow
POTASH, CHLOR—70 kegs, Frisia, Hbg
NITRATE—200 kegs, Frisia, Hbg
SALTPETER—29 cks, Frisia, Hbg
SODA, BICH—10 bbls, Kastalia, Glasgow
NITRATE—100 kegs, Frisia, Hbg
SUMAC—15 cks, Kastalia, Glasgow
VARNISH—13 cs, Rosarian, London
ZINC OXIDE—50 cks, Frisia, Hbg

EXPORTS FROM NEW YORK.

Week ending July 3.

ACID, ACETIC—2 cbys, $12, G B Lockhart, Curacao
LACTIC—5 bbls, $120, Maskelyne, Manchester
NITRIC—1 cby, $7, Olinda, Cuba
OXALIC—1 bbl, $20, Cienfuegos, Cuba
STEARIC—3 bgs, 600 lbs, $64, Alleghany, Port Limon
SULPHURIC—6 drs, $132, Morro Castle, Havana
5 cbys, $20, Finance, Colon
2 cbys, $8, Erna, Kingston
ALIZARINE—6 bbls, $736, Kroonland, Ant
AMMONIA—3 cyls, $147, Cienfuegos, Cuba
12 drs, $547, Niagara, Tampico
ANHY—2 cyls, $100, Monterey, Vera Cruz
SAL—2 bbls, 577 lbs, $43, Finance, Colon
1 bbl, $11, Monterey, Havana
1 bbl, $17, Monterey, Vera Cruz
ANILINE COLORS—30 kgs, 9 cks, $892, Kroonland, Antwerp
BARK—1 bg, $20, Friederick der Grosse, Bremen
EXTRACT—50 bbls, 31,900 lbs, $1,276, Friederick der Grosse, Riga
10 bbls, 5,502 lbs, $145, Pawnee, Trieste
BRIMSTONE—160 bgs, 4 kgs, 56,750 lbs, $810, Monterey, Vera Cruz
2 bbls, 319 lbs, $8, Cienfuegos, Cuba
CALCIUM CARBIDE—162 cans, 17,820 lbs, $457, Titania, Sydney
182 cans, 3 cs, 20,320 lbs, $526, Titania, Auckland
3,148 cs, 346,280 lbs, $8,743, Eskdale, H'b'g
CANDLES—3 cs, $25, Grenada, Trinidad
79 cs, $212, Finance, Colon
5 cs, $10, Erna, Kingston
10 cs, $52, Hilary, Manaos
50 cs, $110, Shawmut, Ponce
2 cs, $24, Alps, Hayti
2 cs, $20, Aller, Gibraltar
6 cs, $15, Alleghany, Kingston
50 cs, $55, Alleghany, Savanilla
CARBON—125 bbls, $940, Sardegna, Genoa
100 cs, $1,100, Eskdale, Hamburg
100 cs, $1,500, Tripoli, Hamburg
CASSIA—4 bls, $18, Finance, Colon
5 cs, $31, Erna, Kingston
10 bls, $43, Monterey, Havana
30 pkgs, $118, Merchant Prince, Rosario
1 cs, $7, Alleghany, Port Limon
1 bl, $6, G B Lockhart, Curacao
CINNAMON—1 bl, 100 lbs, $21, Cienfuegos, Cuba
COLOR—135 cs, $544, Titania, Sydney
COPPER SULPHATE—18 bbls, 11,250 lbs, $450, Statendam, Amsterdam
39 bbls, 22,576 lbs, $903, Statendam, R'dam
DYEWOOD EXT—525 bxs, $1,918, Blucher, Hamburg
30 bbls, 15,690 lbs, $830, Kroonland, Ant
1,040 bxs, 56,907 lbs, $3,414, Tripoli, H'b'g
FERTILIZER—500 bgs, 113,500 lbs, $644, Titania, Wellington
GAMBIER—238 bls, $3,135, Minneapolis, London
GLUCOSE—68 bbls, $1,110, Titania, Sydney
50 bbls, $750, Titania, Auckland
450 bbls, $5,400, Carthaginian, Glasgow
250 bbls, $4,049, Boston City, Bristol
50 bbls, $500, Maskelyne, Manchester
100 bbls, $1,200, Bohemian, Liverpool
350 bbls, $5,446, Columbia, Glasgow
1,000 bbls, $11,844, Hindoo, Hull
GLUE—20 cks, 10,500 lbs, $1,060, Friedrich der Grosse, Bremen
4 bbls, 1,158 lbs, $141, Monterey, Havana
1 bbl, 367 lbs, $29, Monterey, Vera Cruz
1 bbl, $30, Merchant Prince, Montevideo
3 cs, $23, Cevic, Liverpool
1 bg, 100 lbs, $12, Alps, Hayti
GRAPE SUGAR—1,000 bgs, 112,000 lbs, $2,500, Carthaginian, Glasgow
750 bgs, 84,000 lbs, $1,844, Maskelyne, Manchester
1,000 bgs, 112,000 lbs, $2,500, Bohemian, Liverpool
500 bgs, 56,000 lbs, $1,288, Cevic, Lpool
GREASE, LUB—10 bbls, $100, Sardegna, Bombay
50 cs, $351, St Paul, Southampton
1 cs, $13, Titania, Sydney
170 kegs, $172, Titania, Wellington
10 bbls, $135, Friedrich der Grosse, Bremen
12 bbls, $165, Maskelyne, Manchester
25 bbls, $416, Umbria, Liverpool
25 cs, 60 kegs, $173, Cevic, Liverpool
30 cs, $100, Columbia, Glasgow
24 cs, 160 kegs, $190, C Paulsen, Wellington
2 cs, $6, Alleghany, Kingston
47 pkgs, $60, Alleghany, Port Limon
MINERAL—520 bbls, $3,760, Bohemian, Lpool
KAISOMINE—24 cs, $201, Titania, Sydney
20 cs, $190, Titania, Wellington
30 cs, $273, Cevic, Liverpool
LEAD—3,623 pigs, 336,085 lbs, $13,776, Victoria, Leghorn
3,552 pigs, 336,066 lbs, $8,402, Blucher, Hbg
8,365 pigs, 784,215 lbs, $19,359, Carthaginian, Glasgow
10,630 pigs, 936,175 lbs, $69,720, Maskelyne, Manchester
6,044 pigs, 500,170 lbs, $22,960, Cevic, Lpool
3,085 pigs, 280,081 lbs, $10,434, Pawnee, Trieste
LIME, ACETATE—1,445 bgs, 200,217 lbs, $3,500, Blucher, Hamburg
1,657 bgs, 220,997 lbs, $3,800, Tripoli, Hbg
816 bgs, 101,721 lbs, $1,775, Eskdale, Rdam
1,061 bgs, 114,509 lbs, $4,244, Maskelyne, Manchester
3,391 bgs, 268,953 lbs, $9,442, Cevic, Lpool
1,657 bgs, 220,997 lbs, $3,800, Tripoli, Hbg
MILK SUGAR—20 cs, 2,200 lbs, $178, Blucher, Hamburg
OIL CAKE—500 bgs, 110,500 lbs, $2,210, Victoria, Marseilles
1,500 bgs, 420,000 lbs, $4,511, Kroonland, Antwerp
1,752 bgs, 402,015 lbs, $6,765, Cevic, Lpool
1,074 bgs, 118,140 lbs, $1,300, Tripoli, Hbg
4,404 bgs, 1,406, 647 lbs, $15,960, Statendam, Rotterdam
COCOANUT—10 bbls, $200, Alleghany, Port Limon
COD—60 bbls, $850, Titania, Auckland
CORN—100 bbls, $2,157, St Nicholas, Antwerp
COTTONSEED—5 bbls, $125, Sicilia, Odessa
7 bbls, 65 cs, $520, Grenada, Trinidad
10 bbls, $262, Blucher, Hamburg
10 bbls, $235, Laconia, Victoria, Braz
423 bbls, $12,610, Oscar II, Copenhagen
25 bbls, $585, Oscar II, Bergen
100 bbls, $2,340, Oscar II, Helsingfors
40 bbls, $8,487, Oscar II, Stettin
11 bbls, 93 cs, $732, Finance, Colon
2 bbls, $50, Monterey, Progreso
25 bbls, 250 cs, $1,779, Merchant Prince, Montevideo
50 bbls, $1,200, Umbria, Liverpool
300 bbls, $7,639, Bohemian, Liverpool
450 bbls, 700 cs, $12,350, Columbia, Glasgow
280 bbls, 700 cs, Hindoo, Hull
50 bbls, $1,325, Statendam, Rotterdam
4 bbls, 2 cs, $107, Alleghany, Kingston
4 cs, $26, Alleghany, Port Limon
449 bbls, $11,000, Pawnee, Trieste
CYLINDER—150 gls, $30, Cevic, Liverpool
150 gls, $62, Statendam, Amsterdam
ESS'L—15 cs, $1,059, Blucher, Hamburg
1 cs, $53, Monterey, Vera Cruz
11 cs, $485, Niagara, Tampico
1 cs, $192, Alleghany, Cartagena
FISH—200 bbls, $1,850, Tripoli, Hamburg
LARD—15 gls, $13, Grenada, Trinidad
1,292 gls, $1,072, Oscar II, Copenhagen
100 gls, $94, Oceanic, Liverpool

PANKREON VALIDOL EUNATROL
KRYOFINE VIOFORM TRIFERRIN
C. BISCHOFF & CO. 88 Park Place New York.

LINSEED—500 gls, $420, Monterey, Vera Cruz
53 gls, $34, Jamaica, Banes
100 gls, $82, Alleghany, Cartagena
170 gls, $145, Alleghany, Port Limon
50 gls, $33, G B Lockhart, Curacao
LUB—30,000 gls, $3,500, Sardegna, Genoa
27,000 gls, $5,400, Sardegna, Bombay
3,000 gls, $320, Victoria, Marseilles
12,750 gls, $1,530, Calliope, Yokkaichi
9,750 gls, $1,170, Sicilia, Genoa
2,500 gls, $290, Sicilia, Alexandria
300 gls, $91, Grenada, Trinidad
39,650 gls, $7,659, Blucher, Hamburg
9,450 gls, $2,126, Titania, Sydney
22,500 gls, $4,221, Titania, Auckland
1,050 gls, $112, Finance, Colon
3,250 gls, $575, La Savoie, Havre
800 gls, $135, Hilary, Para
450 gls, $89, Monterey, Havana
610 gls, $189, Monterey, Vera Cruz
3,250 gls, $600, Merchant Prince, Buenos Ayres
700 gls, $200, Cienfuegos, Cuba
1,020 gls, $600, Eskdale, Hamburg
300 gls, $50, Maskelyne, Manchester
5,000 gls, $563, Niagara, Tampico
3,000 gls, $500, Umbria, Liverpool
300 gls, $110, Krooniand, Antwerp
52,500 gls, $7,406, Bohemian, Liverpool
1,500 gls, $177, Cevic, Liverpool
38,900 gls, $5,450, Dona Maria, Lisbon
111,700 gls, $17,527, Columbia, Glasgow
39,250 gls, $4,755, Hindoo, Hull
9,250 gls, $2,420, Hindoo, Hull
100 gls, $43, Statendam, Amsterdam
75,930 gls, $13,673, Statendam, Rotterdam
3,100 gls, $421, Grecian Prince, Pernambuco
100 gls, $21, Alleghany, Cartagena
1,780 gls, $395, Alleghany, Port Limon
140 gls, $32, Cherokee, San Domingo
4,500 gls, $650, La Bretagne, Havre
MEAL—705 bgs, 88,125 lbs, $1,248, Grenada, Trinidad
1,120 bgs, 112,000 lbs, $2,630, Columbia, Glasgow
505 bgs, 55,550 lbs, $750, Statendam, Rdam
9 bgs, 1,125 lbs, $15, Alleghany, Kingston
MIN'L COLZA—7,000 gls, $840, Calliope, Yokkaichi
600 gls, $65, Rosalind, Halifax
12,500 gls, $1,500, Bohemian, Liverpool
12,500 gls, $1,500, Hindoo, Hull
NEATSFOOT—200 gls, $155, La Savoie, Havre
30 gls, $22, Alleghany, Port Limon
OLEO—48 tcs, $1,562, Sicilia, Constantinople
360 tcs, $13,200, Blucher, Hamburg
74 tcs, $3,200, Oscar II, Copenhagen
120 tcs, $4,450, Graf Waldersee, Hamburg
1,102 tcs, $42,600, Statendam, Rotterdam
PEP—2 cs, $215, Eskdale, Amsterdam
SEWING MACH—4 cs, $34, Finance, Colon
17 cs, $83, Titania, Auckland
13 cs, $37, Hilary, Para
3 cs, $33, Cevic, Liverpool
2 bbls, 50 cs, $181, Statendam, Rotterdam
TALLOW—1,250 gls, $828, Niagara, Tampico
PAINT—20 kgs, $78, Sicilia, Odessa
13 cs, $107, Grenada, Trinidad
1 cs, $7, Blucher, Hamburg
2 bbls, $65, Jamaica, Banes
46 cs, $604, Oscar II, Copenhagen
8 cks, $110, Rosalind, Halifax
4 cs, 1 bbl, 2 cks, $280, Rosalind, St John's
15 cs, 4 kgs, $126, Morro Castle, Havana
3 cs, $145, Titania, Sydney
11 cs, $270, Titania, Auckland
39 cs, 2 bbls, $512, Finance, Colon
1 cs, $8, Erna, Kingston
1 cs, $22, Friedrich der Grosse, Bremen
38 cs, $318, Monterey, Havana
15 bbls, 4 cs, $140, Monterey, Vera Cruz
15 cs, $501, Merchant Prince, Rosario
18 cs, $124, Cienfuegos, Cuba
1 cs, $28, Eskdale, St Petersburg
3 cs, $150, Orizaba, Colon
1 cs, $25, Niagara, Tampico
2 bbls, $36, Jamaica, Banes
2 cs, $92, Cevic, Liverpool
1 cs, $21, Alps, Hayti
1 cs, $10, Dona Maria, Lisbon
12 cs, 1 bbl, $106, Dona Maria, St Jorge
4 bbls, $234, Grecian Prince, Santos
15 cs, $739, C Paulsen, Wellington
1 bbl, 4 cs, $57, Alleghany, Cartagena
22 pkgs, $297, Alleghany, Kingston
49 bbls, 1 cs, $1,832, Alleghany, Port Limon
PEARL ASH—6 bbls, 3,740 lbs, $247, Statendam, Rdam
PEPPER—3 bags, $47, Grenada, Trinidad
7 bags, $75, Finance, Colon
10 bags, $151, Hilary, Para
2 bags, $31, Monterey, Vera Cruz
1 bag, $10, Cienfuegos, Cuba
5 bags, $46, Shawmut, Ponce
1 bag, $25, Alps, Hayti
1 bag, $7, Alleghany, Port Limon
PETROLEUM—(See Petroleum Clearances on page 31)

PETROLEUM JELLY—5 cs, $48, Titania, Sydney
PITCH—1 bbl, $2, Finance, Colon
1 bbl, $2, G B Lockhart, Curacao
PLUMBAGO—70 bbls, $1,470, Blucher, Hbg
16 bbls, 60 cs, 14 kegs, $856, St Paul, Shton
22 pkgs, $154, Oscar II, Copenhagen
POTASH—6 cs, $21, Cienfuegos, Cuba
RED LEAD—4 kegs, $24, Grenada, Trinidad
RED OXIDE—8 cs, 600 lbs, $26, Monterey, Havana
ROSIN—8 bbls, $30, Grenada, Trinidad
100 bbls, $460, Laconia, Victoria, Brazil
650 bbls, $1,940, Citta di Torino, Genoa
50 bbls, $160, Citta di Torino, Catania
3 bbls, $10, Rosalind, St Johns
75 bbls, $406, Titania, Sydney
6 bbls, $38, Hilary, Para
12 bbls, $41, Cienfuegos, Cuba
25 bbls, $86, Orizaba, Colon
400 bbls, $1,010, Citta di Torino, Naples
50 bbls, $281, Alps, Hayti
250 bbls, $376, Columbia, Glasgow
150 bbls, $315, Hindoo, Hull
150 bbls, $628, C Paulsen, Wellington
100 bbls, $340, C Paulsen, Lyttleton
150 bbls, $474, Grecian Prince, Pernambuco
131 bbls, $690, Alleghany, Savanilla
14 bbls, $65, Alleghany, Port Limon
SARSAPARILLA—4 bls, $91, Victoria, Marseilles
20 bls, 31,348 lbs, $1,085, Eskdale, Hbg
25 bls, 5,393 lbs, $384, Tripoli, Hbg
SENEGA ROOT—12 bls, 1,960 lbs, $950, Tripoli, Hamburg
SIZING—43 bbls, 12,615 lbs, $932, La Savoie, Havre
SOAP—754 cs, $2,425, Minneapolis, London
6 bbls, $133, Sardegna, Genoa
45 cs, $95, Grenada, Trinidad
2 cs, $8, Blucher, Hbg
1 cs, $15, St Paul, Shton
3 cs, $41, Rosalind, St Johns
409 cs, $825, Titania, Sydney
128 cs, $711, Titania, Auckland
31 cs, $79, Finance, Colon
60 cs, $117, Erna, Kingston
1 cs, $157, Hilary, Para
2 cs, $72, Monterey, Havana
1 cs, $8, Monterey, Vera Cruz
1 cs, $12, Cienfuegos, Cuba
3 cs, $167, Umbria, Lpool
77 cs, $1,811, Cevic, Lpool
108 cs, $155, Alps, Hayti
1 cs, $29, Dona Maria, Oporto
1 cs, $19, Dona Maria, St Michaels
1,184 cs, 13 bbls, $3,357, Columbia, Glasgow
4 cs, $35, Aller, Genoa
42 bbls, $207, Statendam, Rdam
130 cs, $293, Alleghany, Kingston
57 cs, $232, Alleghany, Cartagena
1 cs, $33, G B Lockhart, Curacao
SODA ASH—10 bbls, 3,368 lbs, $44, Alleghany, Port Limon
BICARB—10 cs, 30 kegs, 4,360 lbs, $50, Titania, Wellington
20 kegs, 2,420 lbs, $20, Monterey, Vera Cruz
2 kegs, 224 lbs, $3, Alps, Hayti
5 kegs, 560 lbs, $7, Alleghany, Kingston
CAUSTIC—3 drs, 2,250 lbs, $71, Grenada, Trinidad
3 drs, 2,250 lbs, $63, Cienfuegos, Cuba
7 drs, 5,250 lbs, $160, Alps, Hayti
6 drs, 4,534 lbs, $113, Alleghany, Port Limon
CRYSTALS—8 bbls, 3,000 lbs, $30, Grenada, Trinidad
SAL—2 bbls, 750 lbs, $6, Grenada, Trinidad
SIL—10 bbls, 6,364 lbs, $85, Monterey, Havana
300 bbls, 211,951 lbs, $1,728, Monterey, Vera Cruz
SODIUM SULPHIDE—110 drs, 60,390 lbs, $1,208, Cevic, Lpool
SPELTER—5,630,740 lbs, $75,000, Eskdale, Rotterdam
43,000 lbs, $1,750, Bohemian, Lpool
SPERMACETI—12 cs, 850 lbs, $200, Sardegna, Genoa
SPONGE—30 bls, $5,356, Blucher, Hbg
2 bls, $65, Monterey, Vera Cruz
12 bls, $129, Krooniand, Ant
31 bls, $384, Statendam, Rdam
STARCH—2 cs, $12, Finance, Colon
200 bags, $525, Carthaginian, Lpool
52 bbls, $465, Bohemian, Lpool
1 bbl, $11, Alps, Hayti
20 cs, $46, Dona Maria, St Michaels
1,200 bags, $13,180, Columbia, Glasgow
20 cs, $30, Alleghany, Port Limon
2 cs, $3, G B Lockhart, Curacao
STEARINE, COTTONSEED—250 bbls, 95,037 lbs, $6,250, Statendam, Rotterdam
TALC—38 cs, $400, St Paul, Southampton
TALLOW—6 tcs, 2,063 lbs, $165, Grenada, Trinidad
80 bbls, 31,396 lbs, $2,237, Alps, Hayti
195 tcs, 84,028 lbs, $3,350, Statendam, Rdam
15 tcs, 5,766 lbs, $485, Alleghany, Cartagena
15 bbls, 6,967 lbs, $152, Alleghany, Port Limon

TANNERS' EXT—50 bbls, 25,140 lbs, $565, Titania, Sydney
53 bbls, $725, Maskelyne, Manchester
TAR—10 bbls, $50, Laconia, Victoria, Brazil
6 bbls, $28, Finance, Colon
2 bbls, $9, Cienfuegos, Cuba
4 bbls, $18, Jamaica, Banes
250 bbls, $1,023, Bohemian, Liverpool
8 bbls, $26, Alleghany, Cartagena
3 bbls, $14, Alleghany, Kingston
COAL—15 bbls, $75, Finance, Colon
20 bbls, $85, Niagara, Tampico
1 bbl, $5, Alleghany, Port Limon
TURPENTINE—2 bbls, 3 cs, $69, Grenada, Trinidad
10 cs, $57, Rosalind, St Johns
425 cs, $2,219, Titania, Sydney
898 cs, $4,715, Titania, Auckland
15 cs, $86, Finance, Colon
30 cs, $165, Hilary, Para
5 bbls, $153, Monterey, Havana
800 cs, $4,548, Merchant Prince, Buenos Ayres
15 cs, $91, Cienfuegos, Cuba
5 cs, $25, Jamaica, Banes
2 cs, $4, Alps, Hayti
50 cs, $163, Grecian Prince, Pernambuco
135 cs, $720, C Paulsen, Wellington
1 bbl, 20 cs, $123, Alleghany, Kingston
15 cs, $98, Alleghany, Port Limon
2 cs, $9, Alleghany, Savanilla
ULTRAMARINE—66 kegs, 5 bbls, $310, Sicilia, Piraeus
VARNISH—34 gls, $40, Grenada, San Fernando
150 gls, $200, Blucher, Hamburg
20 gls, $26, Rosalind, Halifax
180 gls, $183, Oscar II, Copenhagen
15 gls, $15, Finance, Colon
50 gls, $123, La Savoie, Havre
27 gls, $34, Hilary, Manaos
230 gls, $141, Monterey, Havana
848 gls, $539, Monterey, Vera Cruz
260 gls, $48, Boston City, Bristol
230 gls, $129, Cienfuegos, Cuba
480 gls, $435, Bohemian, Liverpool
54 gls, $90, Dona Maria, Lisbon
1,751 gls, $1,218, Columbia, Glasgow
20 gls, $15, Alleghany, Cartagena
10 gls, $7, Alleghany, Kingston
70 gls, $40, Alleghany, Port Limon
WAX, PAR—150 bgs, 37,178 lbs, $1,800, Sicilia, Genoa
368 bbls, 800 cs, 201,548 lbs, $15,490, Calliope, Yokkaichi
100 cs, 25,407 lbs, $1,200, Titania, Sydney
150 cs, 37,625 lbs, $1,800, Titania, Auckland
15 cs, 4,894 lbs, $295, Hilary, Para
410 bgs, 58,401 lbs, $2,744, Monterey, Vera Cruz
400 bgs, 57,958 lbs, $2,680, Niagara, Tampico
600 bbls, 100 bgs, 195,107 lbs, $9,705, Bohemian, Liverpool
110 bbls, 30,000 lbs, $1,800, Cevic, Lpool
1,086 bbls, 20 cs, 118,543 lbs, $5,910, Dona Maria, Lisbon
120 bbls, 36,381 lbs, $1,820, Hindoo, Hull
172 bbls, 151 bgs, 90,764 lbs, $4,645, Statendam, Rotterdam
20 cs, 5,053 lbs, $240, Grecian Prince, Santos
107 bgs, 21,400 lbs, $1,264, Alleghany, Port Limon
WHITE LEAD—20 kegs, $132, Titania, Wellington
50 kegs, $262, Alleghany, Port Limon
WHITING—14 bbls, $19, Monterey, Havana
4 bbls, $5, Monterey, Vera Cruz
8 bbls, $11, Cienfuegos, Cuba
WOOD FILLER—3 cs, $75, Fuerst Bismarck, Hamburg
9 cs, $207, Umbria, Liverpool
ZINC DROSS—4 pgs, 13,255 lbs, $600, Boston City, Bristol
168,759 lbs, $5,149, Bohemian, Liverpool
363 slabs, 26, 515 lbs, $793, Cevic, Lpool
OXIDE—50 bbls, 11,025 lbs, $325, Sardegna, Genoa
400 bbls, 98,000 lbs, $4,000, Cevic, Lpool
100 bbls, 22,400 lbs, $1,000, Columbia, Glasgow
SKIMMINGS—800 bbls, 240,000 lbs, $6,200, Eskdale, Rotterdam

Boston Exports.

AMMONIA—100 cyl, $2,600, Sachem, Liverpool
BONEBLACK—150 bgs, $200, Halifax, Halifax
BONE MEAL—40 bgs, $48, Prince Arthur, Yarmouth, N S
COLOR—2 bbls, $110, Sachem, Liverpool
DYEWOOD—52 bgs, $127, Olivette, Halifax
GLUE—67 pkgs, $750, Columbian, London
FISH—10 bbls, 5 hf bbls, $375, Alexandria, Hamburg
GREASE—50 bbls, $1,300, St Croix, St John, N B
LOGWOOD EXT, POWDER—1 bbl, $70, Prince George, Yarmouth, N S

OIL, COD—72 bbls, $1,200, Columbian, London
MIN SPERM—50 bbls, $304, Philadelphian, Liverpool
PINE—3 bbls, $29, Halifax, Halifax
OLEO—350 bbls, $13,950, Teutonia, Rdam
PAINT—4 pkgs, $49, Prince Arthur, Yarmouth
3 cs, $38, Olivette, Halifax
PITCH—8 bxs, $41, Sachem, Liverpool
SIZING—150 bbls, $4,750, Sachem, Liverpool
92 bbls, $1,500, Teutonia, Rotterdam
SOAP—37 cs, $1,080, Columbian, London
TALLOW—20 tcs, $615, Teutonia, Rotterdam
VARNISH—1 bbl, $80, Prince Arthur, Yarmouth, N S
WAX—2 cs, $50, Sachem, Liverpool
BEES'—11 cs, $425, Sachem, Liverpool
PARAFFINE—104 bbls, $—, Sachem, Lpool
WOOD, ALCOHOL—60 drs, $5,200, Austrian, Glasgow
ZINC DROSS—211 bgs, 579 pcs, $2,550, Sachem, Liverpool

Philadelphia Exports.

ALCOHOL, WOOD—85 drs, Montauk Point, London
DYEWOOD EXT—260 bbls, 150 bxs, Noordland, Lpool
100 bbls, Rhynland, Lpool
GLUCOSE—150 bbls, Manchester Market, Manchester
700 bbls, Montauk Point, London
GREASE—124 bbls, Noordland, Lpool
6 bbls, Pennmanor, Rdam
15 bbls, Manchester Market, Manchester
15 bbls, Montauk Point, London
MINERAL—885 bbls, Rhynland, Liverpool
PET—300 bbls, Rhynland, Lpool
OIL, CAKE—2,267 bags, Noordland, Lpool
10,517 bags, Pennmanor, Rdam
1,200 bags, Montauk Point, London
1,530 bags, Rhynland, Lpool
CORN—75 bbls, Pennmanor, Rdam
LUB—75 bbls, Noordland, Lpool
1,269 bbls, Pennmanor, Rdam
3,847 bbls, Manchester Market, Manchester
700 bbls, Montauk Point, London
175 bbls, Rhynland, Lpool
MEAL—4,320 bags, Noordland, Lpool
MINERAL COLZA—100 bbls, Manchester Market, Manchester
75 bbls, Rhynland, Lpool
NEATSFOOT—12 bbls, Pennmanor, Rdam
OLEO—470 tcs, Pennmanor, Lpool
ROSIN—525 bbls, Rhynland, Lpool
PAINT—66 pkgs, J N Wylde, San Andreas
ROSIN—100 bbls, Noordland, Lpool
1,101 bbls, Manchester Market, Manchester
SOAP—1 bbl, Pennmanor, Rdam
3,000 bxs, Manchester Market, Manchester
2,000 bxs, Montauk Point, London
64 bxs, J N Wylde, San Andreas
SODA, BICARB—300 kegs, 53 bbls, Montauk Point, London
STARCH—1,600 bags, Manchester Market, Manchester
TAR—2 bbls, J N Wylde, San Andreas
WAX, PAR—100 bags, Pennmanor, Rdam
550 bbls, 200 cs, Manchester Market, Manchester
825 bbls, Rhynland, Lpool
720 cs, Arrow, Hiogo
ZINC SKIMMINGS—100 bbls, 21 cks, Noordland, Lpool

Baltimore Exports.

CARBON—200 cs, Montana, London
COPPER SULPHATE—259 bbls, Lord Dufferin, Belfast
111 bbls, Lord Antrim, Dublin
OIL, CAKE—4,000 bags, Vedamore, Lpool
746 bags, Lord Dufferin, Belfast
COTTONSEED—75 bbls, Lord Antrim, Dublin
LUB—60 bbls, Vedamore, Lpool
MEAL—1,000 bags, Lord Dufferin, Belfast
ROSIN—500 bbls, Vedamore, Lpool
300 bbls, Chemnitz, Bremen
1,150 bbls, Lord Antrim, Dublin
SOAP—1,000 bxs, Vedamore, Lpool
20 bxs, Montana, London
SODA, BICARB—300 kegs, Salacia, Glasgow
WAX, PAR—499 bbls, Montana, London
ZINC SKIMMINGS—54 bbls, Vedamore, Lpool

Savannah Exports.

PHOSPHATE—2,506 tons, $25,060, Firth of Forth, Bremen
3,000 tons, $30,000, Danby, Hamburg
ROSIN—1,000 bbls, $2,500, Jas Farie, Jr, Vardeon, London
6,650 bbls, $16,258, Paterson D Co, Germanic, Rotterdam
1,000 bbls, $2,500, Jas Farie, Jr, Gulden, Bristol
TURPENTINE—2,725 bbls, $66,763, Jas Farie, Jr, Vardeon, London
1,132 bbls, $26,955, Paterson D Co, Germanic, Rotterdam

J. L. & D. S. RIKER

46 CEDAR STREET, NEW YORK

IMPORTERS AND MANUFACTURERS' AGENTS

SOLE AGENTS FOR THE UNITED STATES & CANADA

OF THE UNITED ALKALI CO., Limited OF GREAT BRITAIN

FOR THE SALE OF THEIR VARIOUS BRANDS OF

Bleaching Powder

Newport News Exports.

OCHER—177,670 lbs, $7,107, Salacia, Glasgow
OIL, CORN—63,000 gls, $30,240, Amsteldyk, Rotterdam
COTTONSEED—23,820 gls, $10,364, Amsteldyk, Rotterdam
RED—3,900 gls, $390, Amsteldyk, Rdam
5,200 gls, $520, St Enoch, Antwerp

Norfolk, Va., Exports.

COTTONSEED MEAL—29,120 bgs, $32,500, Castano, Liverpool
SOAP STOCK—48 bbls, $960, Castano, Lpool

New Orleans Exports.

CANDLES—250 cs, Excelsior, Havana
COTTONSEED, CAKE—3,900 bgs, Alabama, Copenhagen
22,618 bgs, Alabama, Aarhuus
2,446 bgs, Carrigan Head, Belfast
MEAL—664 bgs, Asia, Bremen
5,641 bgs, Alabama, Copenhagen
20,372 bgs, Alabama, Aarhuus
14,746 bgs, Carrigan Head, Dublin
3,364 bgs, Carrigan Head, Belfast
18,617 bgs, Athesia, Hamburg
40,320 bgs, Chancellor, Liverpool
2,240 bgs, Nicaraguan, Liverpool
OIL—10 bbls, Breakwater, Porto Cortez
2 bbls, Geo W Kelley, Bluefields
COTTONSEED—400 bbls, Athesia, Hamburg
500 bbls, Nicaraguan, Liverpool
PETROLEUM—2 bbls, Braten, Porto Cortez
100 cs, Breakwater, Porto Cortez
PHOSPHATE—3,000 tons, Oscar II, Stettin
ROSIN—1,500 bbls, Oscar II, Stettin
600 bbls, Carrigan Head, Dublin
245 bbls, Chancellor, Liverpool
SOAP—38 cs, Breakwater, Porto Cortez
TURPENTINE—105 bbls, Nicaraguan, Lpool

Galveston Exports.

COTTONSEED, MEAL—31,155 bgs, 3,268,000 lbs, $43,301, Koeln, Bremen
391 tons, St Quentin, Rotterdam
LEAD—13,299 pigs, 1,007,914 lbs, $40,317, Scholar, Liverpool
OIL, COTTONSEED—120,179 gls, $48,442, Mexicano, Vera Cruz

San Francisco Exports.

ACID—73 cbys, Alden Besse, Honolulu
12 pkgs, Gaelic, Japan
14 tanks, Zealandia, Honolulu
1 tank, City of Puebla, Br Columbia
ASPHALTUM—10 bbls, Gaelic, China
CANDLES—148 bxs, Zealandia, Honolulu
100 pkgs, Kaiulani, Honolulu
FERTILIZER—110 bgs, Zealandia, Honolulu
GINSENG—5 pkgs, Gaelic, China
GLUE—6 pkgs, Gaelic, Japan
2 cs, Zealandia, Honolulu
GREASE—2 cs, Gaelic, China
1 cs, North Bend, Apia
OIL, LUB—1,038 gls, Kaiulani, Honolulu
PAINT—4 cs, Gaelic, China
80 pkgs, Zealandia, Honolulu
11 cs, City of Puebla, Br Columbia
2 cs, North Bend, Apia
5 cs, North Bend, Pago Pago
114 cs, Kaiulani, Honolulu
PITCH—9 bbls, Zealandia, Honolulu
6 bbls, North Bend, Pago Pago
POTASH—1 dr, Zealandia, Honolulu
ROSIN—1 bbl, North Bend, Pago Pago
SALTPETER—407 lbs, Zealandia, Honolulu
SOAP—22cs, Gaelic, China.
25 cs, Gaelic, Japan
3 cs, Zealandia, Honolulu
SODA—8,640 lbs, Zealandia, Honolulu
20,060 lbs, City of Pueblo, Br Columbia
406 cs, North Bend, Apia
415 lbs, North Bend, Pago Pago
STARCH—320 lbs, Aloha, Hawaiian Islands
120 lbs, North Bend, Apia
400 lbs, Kaiulani, Honolulu
TAN BARK—210 bgs, Gaelic, Japan
TAR—2 bbls, North Bend, Apia
2 bbls, North Bend, Pago Pago
TURPENTINE—4 cs, Zealandia, Honolulu
2 cs, North Bend, Apia
5 cs, North Bend, Pago Pago
25 cs, Kaiulani, Honolulu
VARNISH—11 cs, Zealandia, Honolulu
14 cs, Kaiulani, Honolulu
WHITE LEAD—50 kegs, Alden Besse, Honolulu

CHARTERS.

Following is a list of vessels chartered at principal ports during the past week to convey products to or from American ports:—

ACID, PHOSPHATE—Sch Silas McLoon, from Carteret to Bowdoinham, $1.10
CHALK—Br bk Puritan, from Dunkirk to New York, p t
CLAY—Sch Ellen M Baxter, from Raritan River to Portland, 65c
Sch Nat Meader, from Perth Amboy to Portland, 65c
FERTILIZER—Sch Grace Van Dusen, hence to Philadelphia, $1.15
LOGWOOD—Bk Hancock, from Hayti to New York or Chester, p t
PHOSPHATE—Br str Manningtry, from Port Royal to Nantes, 12s
Sch Horatio L Baker, from Port Tampa to Boston, p t
SODA, NITRATE—Br str Induna, from west coast So Amer to north of Hatteras, 18s 6d
Span str Apollo, from west coast So Amer to north of Hatteras, 19s

NEW YORK DOMESTIC RECEIPTS.

Week ending July 3.

ALCOHOL—90 bbls, order, New Orleans
70 bbls, Michigan Chem Co, H R R R
15 bbls, Geo Clark, D L & W R R
WOOD—10 bbls, order, F R L
91 bbls, 7 drs, W S Gray, F R L
30 bbls, Gwynne & R, D L & W R R
BARYTES—193 bbls, order, O D S S L
BEESWAX—1 bbl, order, L V R R
4 bbls, 1 keg, order, Savannah
2 pkgs, 7 bxs, order, O D S S L
CLAY—573 bags, order, O D S S L
2,150 bags, Owl Comm'l Co, Jacksonville
808 bags, order, Jacksonville
295 cks, R McNamee & Co, Charleston
52 cks, Inter Paper Co, Charleston
FULLER'S EARTH—100 bgs, order, O D S S L
GREASE—107 bbls, order, F R L
12 bbls, order, P R R
101 bbls, B S Kuh, E R R
10 hf bbls, order, E R R
20 bbls, Swan & F, P R R
HIGHWINES—80 bbls, Hammond Co, W S RR
80 bbls, J A Webb & Son, D, L & W R R
560 bbls, Amer Dist Co, D, L & W R R
155 bbls, H Pike, Jr, D, L & W R R
80 bbls, Luyties Bros, D, L & W R R
15 bbls, H E Des Bordes, New Orleans
25 bbls, Steinhardt Bros & Co, New Orleans
5 bbls, order, New Orleans
80 bbls, Nat Dist Co, D, L & W R R
130 bbls, Geo Clark, D, L & W R R
80 bbls, J Marcus, D, L & W R R
170 bbls, Cook & B Co, D, L & W R R
160 bbls, Engel, H & Co, D, L & W R R
90 bbls, S Kraus & Bro, D, L & W R R
LEAD—280 pigs, Raritan Copper Works, Galveston
5,652 pigs, Amer S & R Co, Galveston
5,052 pigs, Balbach S & R Co, New Orleans
MUSTARD SEED—400 bgs, Materne & Hess, New Orleans
OIL CAKE—10,574 bgs, export, D, L & W R R
1,015 bgs, export, W S R R
500 bgs, export, P R R
880 bgs, H L Joyce, N Y, O & W R R
COTTONSEED—5 cars, W J Wilcox Ld Co, W S R R
200 tcs, 320 bbls, export, B & O R R
263 bbls, 815 cs, order, Savannah
500 bbls, Amer Cotton Oil Co, New Orleans
63 bbls, Williams & F Co, P R R
100 bbls, order, C R R of N J
LARD—75 bbls, Clarkson & F, H R R R
LINSEED—60 bbls, Macy & D, H R R R
60 bbls, A L Clements, H R R R
15 bbls, Toch Bros, H R R R
70 bbls, T R Bagot, H R R R
63 bbls, A L Clements, P R R
LUB—61 bbls, Smith & N, E R R
60 bbls, Lunham & M, P R R
14 bbls, 604 cs, order, C R R of N J
MEAL—1,792 bgs, export, P R R
310 bgs, export, E R R
4,270 bgs, export, L V R R
1,080 bgs, export, D, L & W R R
920 bgs, McLaren & M, D, L & W R R
OLEO—224 tcs, export, W S R R
40 tcs, M Frankfort, B & O R R
100 tcs, export, H R R R
140 tcs, export, E R R
ROSIN—72 bbls, order, Savannah
PEARL ASH—5 cks, order, H R R R
PETROLEUM, CRUDE—23,000 bbls, J M Guffey Pet Co, Sabine Pass
PITCH—25 bbls, order, O D S S L
285 bbls, order, Savannah
POTASH—45 cks, B P Ducas & Co, Baltimore Trans Co
30 cks, Littlejohn & P, Baltimore Trans Co
10 cks, order, Baltimore Trans Co
6 cks, order, E R R
16 cks, order, P R R
8 cks, order, H R R R
12 cks, order, F R L
5 cks, order, D, L & W R R
QUICKSILVER—334 flasks, Haas Bros, New Orleans
ROSIN—1,250 bbls, order, Savannah
141 bbls, order, O D S S L
400 bbls, M W Larendon, Jacksonville
500 bbls, C B Turton Co, Jacksonville
117 bbls, Tolar, H & Co, Jacksonville
1,160 bbls, Paterson D Co, Brunswick
71 bbls, Baily & M, Brunswick
116 bbls, Tolar, H & Co, Brunswick
247 bbls, L Breslauer, Georgetown
269 bbls, Baily & M, Georgetown
805 bbls, Tolar, H & Co, Georgetown
71 bbls, Tolar, H & Co, Wilmington
89 bbls, Baily & M, Wilmington
150 bbls, order, Jacksonville
SOAP—2,400 bxs, order, Savannah
SPELTER—500 slabs, Bruce & C, P R R
SPONGE—118 bls, order, Savannah
58 bls, order, Jacksonville
100 bls, McKesson & R, Key West
46 bls, A Moses' Sons & Co, Key West
34 bls, Lasker & B, Key West
28 bls, Leousi, Clonney & Co, Key West
38 bls, order, Key West
STEARINE—66 bbls, Central Lard Co, P R R
150 bags, export, B & O R R
TALC—200 bags, order, O D S S L
TALLOW—47 tcs, O M Scripture, E R R
130 tcs, 8 hhds, order, C R R of N J
10 bbls, 9 tcs, order, F R L
87 bbls, 200 tcs, E Valk & Co, P R R
20 bbls, W D Vandenhove & Co, W S R R
10 bbls, order, P R R
49 bbls, Welch & Welch, H R R R
TAR—24 bbls, Baily & M, Georgetown
6 bbls, Tolar, H & Co, Georgetown
3 bbls, A E Belden, Wilmington
440 bbls, S P Shotter Co, Wilmington
172 bbls, order, Wilmington
TRIPOLI—144 bbls, 30 bags, Matchless M P Co, D, L & W R R
TURPENTINE—57 bbls, order, O D S S L
57 bbls, order, Savannah
40 bbls, Tolar, H & Co, Jacksonville
65 bbls, order, Jacksonville
29 bbls, Baily & M, Brunswick
51 bbls, Tolar, H & Co, Brunswick
10 bbls, order, Brunswick
151 bbls, L Breslauer, Georgetown
52 bbls, Baily & M, Georgetown
10 bbls, Benj Moore, Wilmington
256 bbls, F W Blossom, Wilmington
25 bbls, F S Clark, Wilmington
39 bbls, Tolar, H & Co, Wilmington
25 bbls, Baily & M, Wilmington
25 bbls, H Louderbough, Wilmington
5 bbls, order, Wilmington
CRUDE—50 bbls, order, Wilmington
VANILLA BEANS—22 cs, export, New Orleans

Total Domestic Receipts.

At New York for week ending July 3, 1902.

	For week.	Since Jan. 1.
Alcohol, bbls	175	3,405
Beeswax, pkgs	15	424
Boneblack, bgs	....	2,974
Borax, bgs	....	2,062
Cottonseed, bgs	....	20,061
Ashes, bgs	....	480
Cake, bgs	....	.....
Hulls, bgs	....	.....
Meal, bgs	....	54,705
Flaxseed, bush	....	570,010
Grease, pkgs	250	16,594
Highwines, bbls	1,710	65,307
Lead, pigs	10,984	285,904
Mustard seed, bgs	400	11,909
Oil cake, bgs	12,969	371,440
Cottonseed, bbls	1,909	160,027
Fish, bbls	....	1,111
Lard, bbls	75	786
Lubricating, bbls	256	11,780
Oleo stock, tcs	504	66,246
Pitch, bbls	310	3,995
Quicksilver, flks	334	7,091
Rosin, bbls	5,386	207,003
Soap stock, bbls	....	7,675
Spelter, pcs	500	77,276
Sponges, bbls	422	6,004
Starch, bgs	....	6,393
Stearine, pkgs	216	3,318
Sumac, bgs	....	4,308
Tallow, pkgs	570	24,021
Tar, bbls	645	20,837
Turpentine, crude, bbls	50	235
Spirits, bbls	807	60,239

Boston Domestic Receipts.

Week ending July 2.

CLAY—161 cks, Charleston

Baltimore Domestic Receipts.

Week ending July 2.

CLAY—187 bags, 54 cks, Savannah
LEAD—560 pigs, Savannah
OIL, COTTONSEED—50 bbls, Savannah
ROSIN—121 bbls, Savannah
ROSIN—4,617 bbls, Savannah
TURPENTINE—85 bbls, Savannah

Charleston Domestic Receipts.

Week ending July 2.

ROSIN—56 bbls
TURPENTINE—33 cks

Savannah Domestic Receipts.

Week ending July 2.

ROSIN—15,908 bbls
TURPENTINE—9,919 bbls

Wilmington Domestic Receipts.

Week ending July 2.

ROSIN—1,429 bbls
TAR—778 bbls
TURPENTINE—505 cks
CRUDE—806 bbls

New Orleans Domestic Receipts.

Week ending July 2.

COTTONSEED—2,094 bags
OIL, COTTONSEED—28 bbls

TOTAL IMPORTS AT NEW YORK.

In the following table we give the total imports (in packages unless otherwise specified), and their values at the port of New York for the week ending July 4, 1902:—

	Quantity.	Value.
Glass, plate	65	$9,219
Window	2,185	3,834
L. G. plates	56	4,852
Arsenic	202	2,150
Acid, benzoic	31	1,018
Citric	146	1,242
Oxalic	70	2,819
All other	63	1,456
Aniline colors	1,235	77,881
Salt	192	4,139
Ammonia, carb	25	571
Muriate of	114	2,714
Sulph	500	2,500
Argols	2,665	60,412
Albumen	26	363
Alizarine	132	8,426
Assistant	10	156
Asphalt	....	3,425
Balsam copaiba	1	36
Tolu	20	314
All other	54	7,032
Bark, cinchona	84	1,463
All other	60	149
Barytes, carb	2	37
Sulph	80	278
Bay leaves	12	226
Bleach powder	462	6,562
Brimstone	....	61,658
Bronze powder	....	5,826
Butter, cocoa	391	16,731
Chalk	....	2,762
Calomel	10	325
Chemical salts	216	5,150
Chicory	30	565
Citrate of lime	40	3,943
Cinchonidia	10	2,802
Cocoa leaves	132	3,178
Cobalt	15	2,928
Ore	146	5,600
Cocaine	1	1,405
Cudbear	4	108
Cuttlefish bone	21	261
Divi divi	51	60
Dyewood, ext of	2,620	7,636
Fish sounds	736	10,085
Flowers, all other	15	260
Fuller's earth	675	487
Gelatine	736	10,086
Glycerine	163	14,162
Gum arabic	195	4,302
Animi	15	206
Chicle	290	4,596
Copal	84	1,333
Camphor	364	22,668
Damar	310	4,442
Guiac	5	55
Kauri	10	963
Licorice	10	315
Shellac	2,877	114,027
Senegal	150	2,895
Tragacanth	106	8,127
All other	191	3,318
Glue	518	13,621
Indigo	15	1,180
Aux'ly	4	153
Carmine	2	358
Leeches	7	102
Manganese ore	2	21
Magnesite	11,814	10,483
Manure salt	....	11,612
Mica	545	13,501
Nitrate lead	20	396
Nut galls	100	2,378
Nux vomica	154	142
Orchilla liq	16	821
Oxide zinc	130	2,489
Oil, amber	1	3
Aniline	32	3,606
Almond	4	115
Bergamot	80	3,417
Camphor	61	202
Cod	75	1,400
Cocoanut	10	260
Creosote	230	597
Fusel	121	5,677
Linseed	25	745
Lavender	72	7,658
Lemon	630	10,807
Myrbane	16	1,350
Neroli	1	82
Origanum	3	45
Orange	23	480
Olive	7,258	47,094
Palm	916	71,120
Rapeseed	20	461
Rose	2	830
Rosemary	3	133
Sesame	26	878
Other essential	51	5,435
All other	178	3,758
Opium	23	5,923
Prep of	1	5,193
Paints (unspecified)	....	12,640
Blanc fixe	50	437
Chrome yellow	15	1,187
Chrome green	17	1,168
Colcothar	6	22
Drop black	61	854
Iron oxide	203	2,542
Ocher	41	214
Red lead	34	664
Sienna	2	37
Venetian red	417	1,013
Vermillion	5	905
Pitch	500	2,026
Potash, carb	61	2,211
Caustic	75	1,316
Prussiate	28	1,876
Persian berries, ext of	10	338
Potato starch	100	401
Plumbago	410	4,064
Quinine	1	225
Reg antimony	233	10,005
Root, gentian	197	1,175
Ipecac	3	625
Jalap	8	82
Licorice	36	276
Sarsaparilla	60	510
All other	267	3,066
Saccharine	1	8
Saffron, ext of	1	543
Saltpeter	1,994	9,399
Senna	25	366
Soda ash	500	912
Bicarb	10	127
Carb	140	304
Caustic	100	1,548
Nitrate	20	525
Silicate	74	462
Storax	5	57
Sponges	147	5,741
Stearine	998	22,403
Sumac	1,078	2,560
Ultramarine	85	2,977
Vanilla beans	63	17,294
Varnish	13	533
Venice turp	20	165
Wool grease	278	3,164
Other	....	49,099
Bristles	92	20,122
Alcohol	14	179
Dutch metal	1	44
Metal leaf	1	315
Chillies	1	3
Ginger	1,455	13,983
Mustard	1	2
Pepper	1,496	30,329
Shells	148	1,151
Pimento	818	4,776
Cork	....	4,264
Fustic	....	2,253
Logwood	603	3,438
Candles	....	696
Clay	....	4,093
Carbon	....	1,487
Corks	....	3,503
Powder, polishing	....	622
Seed, canary	500	3,064
Caraway	550	2,711
Clover	50	348
Coriander	222	419
Cummin	50	804
Fenugreek	80	234
Millet	387	720
Other	....	3,636
Soap, castile	300	645
All other	128	10,102
Stock	565	10,139
Stone, pumice	....	453
Rotten	....	624
Tapioca flour	885	5,440
Wax	....	23,886
Whalebone	....	137

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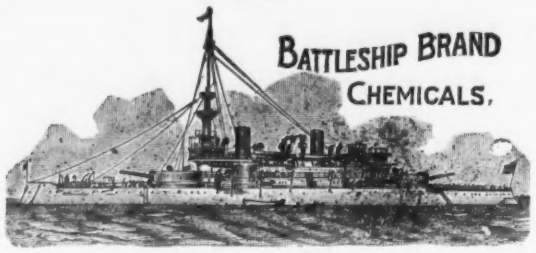

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CHEMICAL MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on pages 35 and 36.

Saturday Evening, July 5, 1902.

The week being broken by the holidays, trade in chemicals has been of a retail nature. There has, however, been considerable done in alkali and caustic soda for forward delivery, and in sal soda for delivery over the summer months. Nitrate of soda is a shade firmer, both for prompt and forward delivery. Brimstone is in light stock on the spot, but offered more freely for forward shipment. No further advance has taken place in either cream of tartar or tartaric acid, both of which are held firm and offered in a limited way. Arsenic is dull, but steady. Another advance is predicted in blue vitriol, which is in good demand. The other light chemicals and acids are meeting with the usual jobbing demand incident to this season of the year, as detailed below.

Heavy Chemicals.

ALKALI.—Important deliveries to the glass makers are over for the present, as the bulk of them have shut down for the usual summer vacation. Outside of this, a good business has been done in domestic high test at 85@90c. f. o. b. works, as to density. For delivery over next fire there have been considerable transactions at 75@80c. f. o. b. works, as to density and packing. In this section prices are steady at 95@97½c., as to test and quantity, at which a good jobbing demand is reported.

BICARB SODA.—Rather more business both for prompt and fall delivery for home consumption with more inquiry for export. Prices remain steady at 95c. for kegs of ordinary and 3c, and upward for extra grades as to quantity, less the usual discount terms.

CAUSTIC SODA.—Deliveries of domestic high test for prompt continues good, and additional sales in excess of regular deliveries are being made for prompt at 1.90@1.95c. f. o. b. works. For delivery over the balance of this and next year, further sales are reported at 1.85@1.90c. f. o. b. works, as to test and make. Powdered is also selling freely for prompt and forward at 2¾c. for 60 per cent. and 2⅞c. and upward for higher tests, as to make, quantity and delivery point.

SAL SODA.—Better demand for delivery over the summer months for domestic stocks which are not overplentiful and held firm at 65c. f. o. b. works, and 75c. delivered, in this section, less the usual discount terms. Concentrated is selling freely at 1.40@1.50c. f. o. b. for "Arm and Hammer," less usual terms. Foreign is in good request for shipment at 67½c., and on the spot at 72½c.

MONOHYDRATE CRYSTALS.—No falling off in the demand for prompt and forward, with prices held firm at 1⅜c., and for "snowflake" at 1¼c. f. o. b. works, less the usual discount terms.

BLEACHING POWDER.—Only small sales to meet current wants are reported. Stocks, as usual at this period of the year, are not excessive and prices are fairly steady at 1⅜@1⅝c. for Continental, and at 1¾c. and upward for Liverpool, as to test, make and terms of sale.

Acids.

ACETIC.—Deliveries to the green makers are falling off, but to other consuming outlets they show a satisfactory increase. Stocks are light and held steady at 1.95c. and upward, as to test, quantity and style of packing.

MURIATIC.—Since the month opened there has been an increase in deliveries upon old contracts, with additional sales reported at 1½c. and upward, as to strength and quantity.

OXALIC.—The usual jobbing demand prevails for spot goods, at 4⅝@4⅞c. for German, and 4⅞@5c. for English, as to make and seller. For round lots it is reported prices have been shaded.

TARTARIC.—As yet no further advance is reported by the makers, though it is intimated one may be made before the end of the month. Values remain firm at 28@28¼c. for crystals, and 28¼@28½c. for powdered, less the usual discount terms.

SULPHURIC. — Since the month opened deliveries to the soda water makers have shown a decided increase outside of this. The deliveries have been fairly good and prices are steady at 1.30c. for 66 deg., as to quantity and point of delivery. The bulk of the deliveries, however, are on old contracts.

Miscellaneous Chemicals.

ACETATE OF LIME.—There is no falling off in the demand either for export or home consumption and prices may be quoted firm at .95@1c. for brown, and 1.35@1.40c. for gray, as to quantity and delivery point.

ALUM.—Since the month opened deliveries have shown further increase, especially with the paper makers. Stocks are not excessive and prices hold steady at 1.75@1.80c. for lump and 1.80@1.85c. for ground, as to make and quantity.

ARSENIC.—The market remains dull for spot goods as both the glass and green makers are out of the market for the present. Jobbing sales are reported at 3¼@3½c., and of German for arrival at 3¼c., and for shipment at 3 1-16@3⅛c., as to date of arrival. Red is meeting with the usual jobbing demand at 7@7½c., as to grade and packing.

BLUE VITRIOL.—The market is firm with tendency to higher range of values. Stocks being light, makers are offering in a limited way car lots at 4.60c. f. o. b. here and jobbing parcels at 4¾@5⅛c., as to quantity and seller.

BRIMSTONE.—The spot market is about bare of stocks, and only a limited quantity is obtainable from steamers due at $23.25. Shipments are steady and held at $22.25 for seconds and $20@20.25 for thirds, as to date of arrival.

CHLORATE OF POTASH.—Rather more demand in a jobbing way for spot goods at 8¼@8½c. for crystal, and 8½@8¾c. for powdered, as to quantity and seller. Car lots are offered at 7¾c. at the factory, as to delivery point and terms of sale.

CHLORATE OF SODA.—The demand has been slack and prices are easier, both for prompt and forward, at 8¼@8⅜c., as to make and seller. To place a round lot these would have to be shaded.

CARBONATE OF POTASH.—The market is weak and dull at 3¼@3½c. for hydrated, and 3¼c. for calcined, as to test, make and seller.

CREAM OF TARTAR.—No further advance has been made by makers, though one may come at any moment. Only jobbing sales are being made, at 21¼@21½c. for either, less the usual terms.

COPPERAS.—Further business is reported for July delivery in car lots at 35c. It is reported that the output will be very much restricted during the summer months.

NITRATE OF SODA.—The market is steady, with small sales on the spot reported at 2.07½c., and from steamer due next week at 2.05c., and early August at 2c., for August shipment and forward 1.90@1.92½c. is named.

GLAUBERS' SALT.—Further business is reported for July forward at 75c. and upward for car lots, as to quantity and delivery point.

SAL AMMONIAC.—Better demand all around, both for prompt and for forward shipment. Prices are steady at 9⅛@9½c. for lump and 5⅝@6c. for white grain, as to make and quantity.

SUGAR OF LEAD.—Contract deliveries keep up good, with now and then additional sales for prompt, at 8@8¼c. for white, and 6@6¼c. for brown crystals, less the usual discount terms.

SALTPETER.—The market is dull and weak for dock lots at 3¼@3½c., and for refined at 4¼@5¼c., as to grade and quantity.

Ammoniates, Potashes, Etc.

Trade in the leading ammoniates the past week has been quiet and no important tranactions are reported. The usual 25c. per ton advance in the potash salts went into effect onthe first. Sulphate of ammonia is quiet, but held steady at $3.10@3.15 for spot, and $3.00 for a limited quantity for July shipment. Blood is in light stock and held steady at $2.02½@2.05 f. o. b. Chicago. Tankage is offered for November forward, but for prompt, prices are steady at $1.85 and 10 f. o. b. Chicago for 9 and 20. More demand for Calcutta bone meal, for whnch $23.00@24.00 is named, as to grade, and for domestic steam ground $16.00@16.50 f. o. b. Chicago.

Parties desiring to be brought in contact with concerns who offer bargains in machinery are respectfully referred to page 27 of this issue.

If you desire to be brought in contact with the makers of machinery which enters into the manufacture of chemicals, drugs, paints, dyestuffs, fertilizers, naval stores, varnish, white lead, cotton oil, linseed oil, lubricating oil, etc., we would respectfully refer you to the Machinery Department of this publication, which you will find on page 23. Any special information that may be desired will be gladly furnished upon application, for we are in a position to place prospective purchasers in direct communication with the manufacturers of machinery of all kinds.

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Cottonseed Oil Export Statistics

The following table shows the amount of cottonseed oil, in gallons, exported to each country during the month of May and during the period of eleven months ended May 31, 1902, with comparisons:—

EXPORTS DURING MAY.

Exported to—	1901.	1902.
United Kingdom	163,740	153,346
France	525,413	288,879
Germany	380,706	413,312
Other Europe	2,332,047	1,469,777
British North America	73,679	94,386
Cent. Am. & Br. Honduras	2,045	1,095
Mexico	271,432	72,015
Santo Domingo	5,305	6,037
Cuba	10,647	13,215
Other W. I. & Bermuda	49,030	36,742
Argentina	8,398	16,884
Brazil	79,995	159,226
Other South America	38,595	39,965
British Australasia	21,897	4,279
Other Asia & Oceanica	50	.....
Africa	28,549	6,419
Total, gallons	3,901,528	2,775,577

EXPORTS DURING ELEVEN MONTHS.

	1900*.	1901.	1902.
United Kingdom	1,442,706	4,896,595	1,450,637
France	13,229,379	9,462,120	6,575,533
Germany	3,902,323	3,886,265	2,928,480
Other Europe	18,518,580	21,479,271	13,792,469
Br. N. America	384,053	738,711	828,299
Cent. Am. & Br. Honduras	16,282	15,931	15,937
Mexico	3,725,876	2,981,587	3,178,678
Santo Domingo	112,688	138,497	120,437
Cuba	123,961	82,782	79,584
Other W. I. & Bermuda	675,348	673,321	638,819
Argentina	126,011	142,336	57,408
Brazil	663,305	951,309	856,001
Other S. America	343,582	383,170	377,503
Br. Australasia	87,015	155,823	96,603
Other Asia & Oceanica	15,146	19,481	5,703
Africa	884,122	1,009,989	280,320
Total, gallons	44,261,382	47,017,038	31,282,411

*Included is 11,005 gallons exported to Porto Rico.

The Manufacture of Charcoal and By-Products in Ontario.*

BY W. L. GOODWIN, PH. D.

The closing year of the eighteenth century saw the first attempt to manufacture charcoal iron in Ontario. In 1800, a small furnace was built at Furnace Falls (now Lyndhurst), on the Gananoque River. But the ore was poor and had to be drawn some distance, and attempts to cast the charcoal iron into the pots and kettles, so much needed by the settlers, proved a failure. In 1813, a furnace was built to make charcoal iron from the bog ore of Norfolk county, near Lake Erie. This venture proved a failure, but the abandoned property was bought, in 1820, by Mr. Joseph Van Norman, and the first successful charcoal iron furnace in Ontario was blown in in 1822. It worked for eight or ten months of the year and produced 700 or 800 tons of iron. Four thousand cords of good hard wood (very plentiful in those days) were required for the charcoal used, a ton of iron being produced for 250 bushels of charcoal. This enormous consumption of charcoal is accounted for by the use of a cold blast and by the small size of the furnace. It throws a little light upon the conditions of those early days when we read that there was no sale for the pig iron, but that Van Norman was obliged to become founder, and cast the product of his furnace into articles such as the great kettles for boiling down maple sap and potash lye—two great industries of Ontario at that time. Maple sugar is still produced in considerable quantities, but the days have passed when the farmer brought in his cakes of potash to the country store and exchanged them for goods. The great iron kettles can, however, still be seen in use as water butts at some of the farmhouses in Eastern Ontario—monuments of the enterprising Van Norman. This furnace was shut down in 1847.

Blairton, near Marmora, and Madoc were the scene of several attempts to make charcoal pig—all failures, in spite of the high prices—viz., $30 to $35 a ton. The building of the St. Lawrence canals in the fifties let in pig-iron from Great Britain, and the price at once went down to $16. This closed the first period of the manufacture of charcoal iron in Ontario, with the solitary exception of Van Norman's furnace in Norfolk county, a record of dismal failures.

The next recorded attempt to manufacture charcoal on the large scale was by a company organized in Kingston, in 1886, to use the Matthieu retort process, with acetate and methyl alcohol as by-products. The works were built at Sharbot Lake, an excellent hardwood district, and the intention was ultimately to use the charcoal to reduce the iron ores of that district. The best of charcoal was obtained, but the process was slow and expensive, and the price of acetate went down from 3 or 4 cents to ¾ cent a pound. The company did not even get so far as to put in the wood alcohol plant, but went into liquidation. The plant was bought, in 1887, by the Rathbun Co., of Deseronto, and removed to that place, but, after a short time, it was destroyed by fire. The retorts were replaced by bee-hive kilns, holding about 40 cords each, and the manufacture of charcoal and by-products was successfully carried on from the start. In 1889 they were running eight kilns, and 75,000 bushels of charcoal were produced in that year. Wood alcohol and calcium acetate were made as by-products and also "black liquor," the turnings from the machine shops being available for that purpose. Efforts were made to prepare marketable products from the tar by distillation. Wood creosote was put upon the market for creosoting timber, and the residual pitch was used as a roofing material. It was at this period that the writer's limited practical acquaintance with the subject was obtained. A short investigation of the tar was made with a view to ascertain its probable value for creosoting, and, if possible, to find means of avoiding the frequent accidents and difficulties due to the frothing of the tar and pitch when heated or when run hot from the still into barrels. The investigation showed a large percentage of the higher phenols and a considerable amount of paraffins, and I at that time formed the opinion that this wood tar, if properly used, would be superior to ordinary coal tar creosote as a timber preservative. But theoretical conclusions in these matters do not carry much weight with practical engineers, and the experimental proof would have required many years. The pitch manufactured from wood tar is brittle, and for many purposes, therefore, inferior to coal tar pitch. Several years ago the distillation of the tar was abandoned, and it has since been used as a fuel, mixed with the charcoal "braize." The number of kilns was increased until there are now seventeen in operation, one kiln being emptied every day. The charcoal was at first mostly shipped to Detroit for the manufacture of iron there, but, in 1897, the Rathbun Company made the natural completion of the series of works in this thriving little town by building a hot blast furnace of 50 tons capacity, the first furnace which has been run successfully in Ontario since the days of Van Norman, 75 years ago. This furnace uses the whole output of charcoal from the kilns, and from 50 retorts of a capacity of about five-eighths of a cord each, erected by the Standard Chemical Company, which began to operate the charcoal works at this time. The combined yield is about 2,800 bushels a day.

The retorts are iron half-cylinders set horizontally, about 9 ft. long and 4 ft. high. Each retort is charged once a day. The distillate is condensed by straight condensers, one attached to each retort. As these works are at the water's edge, the cost of pumping cold water to the condensers is relatively low. The distillate is collected into a main and pumped by a small Northey pump into the chemical works, into which the distillate from the kilns is also conducted. The fuel used under the retorts is the tar mixed with the waste from the charcoal. The acid liquor is run into five tanks, allowed to settle, and the heavy tar is run off and distilled with steam at 80 lb. pressure to remove alcohol and acetic acid. The remaining tar is run off and used as fuel. The acid liquor is run into tanks and neutralized with lime, brought over the Company's railway from Napanee, where a lime sufficiently free from magnesia is obtained. The settled liquor is run into five stills to distil off the wood alcohol. A fine white wood alcohol (still containing the acetone) is obtained by four distillations combined with a process of chemical purification. The alcohol as supplied to the trade is 96 per cent. to 98 per cent., but a 99 per cent. alcohol can be made when required. The acetate liquor is run into tanks and then into evaporators (five of 850 gals. capacity each), evaporated to dryness, shovelled out, and thoroughly dehydrated on a sheet-iron floor heated by a fire in which refuse is used as fuel. The gray acetate produced is of good quality, assaying about 84 per cent. of calcium acetate. It is sold in Germany, England, and Belgium, for the manufacture of acetic acid, some of which Canada afterwards imports. Since pyrites is being mined in Ontario, and about $1,600 a day in sulphur dioxide is going into the atmosphere at Copper Cliff, it would seem that there is room here for a combination of our resources. Sulphuric acid is being made from Sicilian sulphur in Hamilton, and from pyrite at Capelton, Quebec. Small quantities are being made at Sydney, Cape Breton. We are importing large quantities for the manufacture of explosives and for other uses. I understand, however, that the Standard Chemical Company has begun the manufacture of acetic acid in Toronto.

The wood alcohol is put up in iron drums holding about 80 gallons each, and also in 40-gallon barrels. The market is principally in Canada, where it is used as a solvent, and for denaturing grain alcohol.

The wood supplied by the Rathbun Company for the manufacture of charcoal at Deseronto is brought by the company's railway from the Central Ontario District (Coe Hill, etc.), and from the neighborhood of Marmora, Tweed, and the district along the Kingston and Pembroke Railway. About 70 per cent. is hard wood (maple, beech, birch, etc.), and the remainder elm and ash. But these districts have long supplied hard woods for fuel and for manufacturing purposes to Kingston, Belleville, and the smaller towns. They are thus becoming depleted, and the tendency of prices is, therefore, upward. The Rathbun Company have, therefore, decided to extend the Bay of Quinte Railway northeastward so as to reach what is practically an untouched supply of good charcoal wood. The forest areas thus made available will also supply the Deseronto saw-mills with logs for the manufature of barrel staves for cement, apple, and sugar barrels. There are also several small manufacturing towns in the district which consume a good deal of hardwood for the manufacture of carriages, etc. It would seem advisable to place a charcoal works in such a district rather than in a place so far removed from the wood supply as Deseronto is. The distribution of the by-products from such a place would be equally easy, and the freight on the charcoal to the furnace at Deseronto would be less than that on the wood.

There are also charcoal works (The Standard Chemical Co.) at Fenelon Falls and at Longford. At the former place, there are 32 retorts holding 1¾ cords each, giving a daily output of 850 to 900 bushels. At Longford, there are six oven retorts of a capacity of six cords each. The daily output is 1,300 to 1,350 bushels. No. 1 hardwood (beech and maple) must be used to attain this output. With soft wood the yield is much less. By-products are made in both places.

This account would be incomplete without some further reference to the work of the Deseronto Charcoal Iron Company. It has been found that the charcoal made from the local hardwood is of excellent quality for blast furnace use. When carefully made, it carries a good burden.

The chemist, Mr. Horace C. Mabee, has given me the following analyses:—

MIXED SAMPLE.

	Per Ct.
Phosphorous in charcoal	0.011

RETORT CHARCOAL.

Moisture at 110 deg. C.	2.62
Carbon and volatile matter	91.48
Ash	5.90

KILN CHARCOAL.

Moisture at 110 deg. C.	3.14
Carbon and volatile matter	92.62
Ash	4.24

United States Lake Superior ores are mostly used, but Ontario ores have also been successfully smelted, and preparations are now being made to use ore from the Helen Mine, Michipicoten. The iron finds a ready sale in Canada at such manufacturing points as Niagara Falls, Walkerville, Oshawa, Smith's Falls, etc., at prices ranging about $2 a ton more than those for coke pig. Considerable quantities are now being shipped to England, where the product of Radnor Forges in Quebec has always been well received. I add a few analyses:—

DESERONTO NO. 1 B.

	Per Ct.
Iron	94.59
Silicon	1.56
Sulphur	0.01
Phosphorous	0.12
Manganese	0.338
Graphitic carbon	1.88
Combined Carbon	1.23

*A paper read at a recent meeting of the Canadian section of the Society of Chemical Industry.

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Sulphur	0.007
Phosphorous	0.17
Manganese	0.327
Graphite carbon	2.063
Combined carbon	0.967

DESERONTO NO. 3 LOW.

Iron	95 30
Silicon	0.734
Sulphur	0.01
Phosphorous	0.18
Manganese	0.318
Total carbon	3.425

From this account, the conclusion is inevitable that Ontario, with its immense areas of forest, has only made a beginning in the manufacture of charcoal and by-products, and in the production of charcoal iron. But, since success in this, as in so many industries, depends to such a large extent upon by-products, the investigation of the destructive distillation of wood might well be undertaken by some of our chemists. There are three obvious fields of research:—(1) an extension of the work of Violette on the influence of temperature on the composition and amount of the volatile product; (2) a thorough examination of wood tar with a view to discover new materials for synthetic compounds, and (3) the perfection of a process for converting the waste of saw-mills into fuel or by-products, or into gas available for power. Violette's results show that, if the wood is heated very slowly, it suffers a loss of oxygen and hydrogen, passing through stages which remind us of the slower natural processes by which it becomes peat, lignite, and bituminous coal. As it passes through the stages in the artificial process, the character of the distillate changes, acetic acid, methyl alcohol, acetone, phenols, etc., coming over between 150 deg. C. and 280 deg. C., gaseous products from 280 deg. C. to 350 deg. C., and hydrocarbons (paraffins, benzene, etc.) from 350 deg. to 430 deg. C. This suggests the possibility of so regulating the temperature as to produce a maximum of acetic acid and methyl alcohol, and at the same time a tar more nearly approximating in composition to that of coal tar. The usual methods of firing do not permit of such an exact control of the temperature. For this reason some manufacturers have used superheated steam. The obvious disadvantages are the limit of temperature and the expense of the apparatus. Recently, Jebsen has introduced a process for distilling peat in retorts heated by electricity generated by water power. He obtains peat-coke, and as by-products, gas, ammonia, methyl alcohol, etc., and a considerable proportion of paraffin wax. The control of the temperature with such an apparatus should be very perfect, and the process might be applicable to wood. In our country, where wood and peat are both plentiful, and so commonly associated with water power, an inviting field for experiment is opened up by this work of Jebsen. Dr. James Douglas, of New York, has recently published an account of the modification of the Loomis Pettibone Generator, which converts wool into a mixture of water gas and producer gas available directly for use in gas engines. He writes, "I have no doubt whatever that this apparatus and process would be admirably applicable to the conversion of the coarser waste from saw mills; but in using sawdust, the grate bars would, as in the Swedish sawdust producer, have to be dispensed with, and in their place probably a thick layer of coke supplied." As the supply of saw mill waste is unlimited, the problem before us is to so perfect a generator of this type as to render it available for the conversion of the mixed waste (now destroyed at a considerable cost) and at the same time to provide a profitable use, in manufactures, etc., for the large amounts of power thus afforded.

In fact, the whole subject of wood products invites Canadian chemists to follow the lead given by Messrs. Cross and Bevan in their interesting researches on cellulose, and I cannot more fitly conclude this paper than by quoting from the preface to their recent volume on this subject, "Researches on Cellulose."

"We invite the younger generation of students of chemistry to measure the probability of finding a working career in connection with the cellulose industries. The impression is, that the industries in coal tar products largely exceed in importance those of which the carbohydrates are the basis; whereas the former are quite insignificant by comparison. A little reflection will prove that cellulose, starch, and sugar, are of vast industrial moment in the order in which they are mentioned. If it be an open question to what extent science follows industry, and vice versa, it is not open to doubt that scientific men, and especially chemists, are called in these days to lead and follow where industrial evolution is most active. There is ample evidence of activity and great expansion in the cellulose industries."

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PHOSPHATE SODA, TRI-SODIUM PHOSPHATE,
C. P. ACIDS, ETC.

SEND FOR CATALOGUE.

DYE MARKET.

NOTE.—Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures. Complete prices current will be found on page 36.

Saturday Evening, July 5, 1902.

Gambier continues to be the special feature of the market for dyestuffs, there being little of interest to note in connection with the other leading articles. As regards gambier, about the same conditions prevail; the movement continues good and the market is very strong with an upward tendency to prices. Advices from abroad report a scarcity of egg albumen. Yellow prussiate of potash and bichromate of potash continue firm. The corn products are firm with the grain, but without quotable change.

ALBUMEN.—There is nothing new to report in connection with either blood or egg albumen so far as this market is concerned. There is a light jobbing business doing at unchanged prices, which are repeated on the basis of previous quotations, as follows:—Egg albumen, Chinese, 45c.; European, 50@60c.; blood albumen, 14@20c., as to quality and quantity. The following information comes by mail from Trieste:—

No new crop goods have as yet arrived, but we have heard that manufacturers in the Levant have very high ideas for prime odorless goods, viz., about 39½c. The only lot which is still here, is only suitable for industrial purposes, and could be invoiced at 30½c.

ANILINE OIL.—There has been no change in the situation regarding aniline oil and the market is without feature. No large business is reported. Quotations show no change from the basis of 9¼@9½c.

ANILINE SALT.—As with aniline oil there is nothing in the situation to attract special attention and conditions are without change as previously reported. Demand is confined to unimportant quantities. Prices are unchanged on the basis of previous quotations of 8½@8¾c., for prime salts.

BICHLORIDE OF TIN.—The situation offers nothing new. No important business is reported, but the market for all tin solutions is fairly steady. Quotations are unchanged and are repeated as follows:—50 deg., 9@9½c.; 60 deg., 11¾c.

BICHROMATES.—There is a fairly firm tone to the market for bichromate of potash, but no quotable change in price has occurred. The market does not attract any undue amount of attention. Bichromate of soda is unchanged, both as regards volume of business and range of values. We repeat quotations as follows:—Bichromate of potash, 8¼@8½c.; bichromate of soda, 6¼@6½c., as to quantity.

CUTCH.—A sale of 2,000 bales is reported, but aside from this the same uninteresting conditions prevail. Prices are without quotable change and are repeated as follows:—Mat, 4½@5c.; refined, 4¾@5½c.; refined in boxes, 5@5½c. The shipments from Rangoon from January 1 to June 16 to all parts were 2,270 tons, against 2,710 tons in 1901, and 4,240 in 1900.

DEXTRINE.—The market for corn dextrine is very firm in sympathy with the high prices of the raw material, but as yet there has been no advance. An improved demand would, it is thought, bring about higher prices. There has been no change in any phase of the situation as regards imported and domestic potato dextrine. We repeat prices upon the basis of previous quotations as follows:—Imported dextrine, 5½@7c.; domestic, 5¾@6½c.; corn dextrine, 3.80@4½c.

DIVI-DIVI.—There is nothing new to report. A little business is being done, but only in a jobbing way from store. There have been no arrivals of any moment this week. Quotations of $30@40 per ton are still current.

FUSTIC.—The market is quiet, there being no important demand. Quotations are as follows:—Stick, $16@28; young root, $32@36 per ton. There does not seem to be much offering. Advices from Trieste state that arrivals of young fustic have been rather heavy, and owners have been pressing to realize on their holdings. The consequence has been that no very high prices have been obtained. The sales during the last few weeks included about 200 tons.

GAMBIER.—As noted in the introductory paragraph at the head of this report, there has been no diminution of the strength of the market for gambier. Holders of old goods in store are not anxious sellers, and the quotation of 6½@7c. is therefore somewhat nominal. For new goods from store holders ask 6¼@6½c. The Lucania brought in a small lot, 216 bales, which will probably be closed out on dock at above quotations. It is understood that a small quantity of the Maristow's cargo might be had at about 6c. Later steamer arrivals are quoted at 5½c. The quotation for May-July shipment is 5½c., and for later, 5⅝c. So far as can be learned, there is no cube gambier offering, the article being very scarce. The shipments of gambier from Singapore to the United States during June were 2,200 tons, against 520 tons during May. The total shipments from Jan. 1 to June 30, were as follows:—

	1902. Tons.	1901. Tons.	1900. Tons.
To United States.....	7,730	6,920	9,440
To United Kingdom.....	5,160	7,045	6,355
To the Continent.....	2,570	2,960	4,920
Total tons	15,460	16,925	20,715

HYPOSULPHITE OF SODA.—The same quiet to steady features prevail, and nothing has occurred to alter the tone of the market. Quotations are reported as follows:—American, in casks, 1.60@1.65c.; in kegs, 1.70@1.75c.; German, in casks, 1.70@2c.; in kegs, 1.90@2.30c.

INDIGO.—The local market offers no new feature and is quiet between seasons. Consumers as yet show no desire to come into the market to replenish stocks, and prices are reported nominally unchanged upon the basis of old current quotations, as follows:—Bengal, low grade, 60@65c.; medium, 65½@75c.; high grade, 85c.@$1; Kurpahs, medium to good, 60@65c.; higher grade, 67½@90c.; Guatemala, 40@80c.; Manila, 43@45c.

NUTGALLS.—There are no new features with which to supplement previous reports on the market, for either blue Aleppo or Chinese galls. The market continues rather quiet. Prices are without quotable change as follows:—Blue Aleppo galls, 14@15c.; Chinese galls, 14@14½c.

PRUSSIATES.—The market for yellow prussiate of potash continues to rule very firm on account of conditions noted heretofore. Prices, however, are not changed from the basis of previous quotations of 14@14¼c. Prussiate of soda offers no new features and the market is unchanged at 11@12c.

STARCH.—In sympathy with the higher market for corn, prices for corn starch are in upward tendency, although no quotable change has taken place in prices. Demand is fair, but not particularly great. Potato, rice, and wheat starch are firm and unchanged. We report quotations as follows:—Corn, pearl, in barrels, 2.72@3½c.; in bags, 2.82@4c., as to brand and quantity; potato starch, 3.85@4c.; rice, 7½@9c.; wheat, 4½@5c.

SUMAC.—The market for sumac remains quiet, as previously reported, and nothing has occurred in the primary market to in any way affect the local situation. Quotations are repeated as follows:—Sicily, No. 1, $46@53; No. 2, $42@45 per ton, the inside figures for 10-ton lots; Virginia sumac, $33@34 per ton.

TAPIOCA AND SAGO FLOUR.—Tapioca and sago flour are both moving slowly and neither attracts any particular attention. There has been no change in prices from the basis of previous quotations, which are repeated

as follows:—Tapioca flour, 2¼@2⅝c.; sago flour, 3⅛@3¼c.

TIN CRYSTALS.—There has been no quotable change in prices, and the market offers no new features to add to previous reports. Quotations are as follow:—Barrrels, 18½c.; kegs, 19c.; jars, 20c.

ZINC DUST.—Conditions are unaltered. Demand is light, but the market keeps fairly firm on the basis of 5@5½c.

Parties desiring to be brought in contact with concerns who offer bargains in machinery are respectfully referred to page 27 of this issue.

Imports and Exports.

Below we give a summary statement of the imports and exports of the United States for the eleven months ending May 31, 1902, compiled by the Bureau of Foreign Commerce at Washington. We also give the same information for the corresponding period of last year for comparison:—

	1901.	1902.
Alizarine and alizarine colors, lbs	4,054,013	6,206,856
Argols or crude tartar, lbs.	26,136,407	27,107,251
Asphaltum, or bitumen, crude, tons	127,881	104,656
Bark, hemlock, cords	13,806	22,926
Bark, cinchona or other quinine, lbs.	4,541,176	3,333,610
Bristles, lbs.	1,579,070	1,769,866
Brushes	$1,054,159	$1,063,132
Cement, lbs.	602,090,159	380,753,122
Clay of all kinds, tons	146,392	171,948
Coal tar colors & dyes	$3,583,685	$4,596,727
Cochineal, lbs.	103,706	128,165
Cocoa, crude, etc., lbs	40,565,103	45,768,806
Corks, mfrs. of	$465,997	$587,477
Corkwood, or cork bark, manufactured	$1,602,191	$1,563,287
Cutch and gambier, lbs.	23,588,055	25,740,665
Dyewood extract, etc.	2,616,285	2,765,495
Glass bottles, etc., empty or filled	$454,526	$416,704
Glass, cylinder, crown, etc., unpolished, lbs	25,672,460	44,806,403
Glass, cylinder, and crown, polished, unsilvered, sq. feet	1,737,178	1,722,619
Glass, cylinder and crown, polished, silvered, sq. feet	222	618
Glass, plate, fluted, rolled or rough, sq. ft.	46,162	118,490
Glass, plate, cast, polished, unsilvered, sq. feet	2,984,742	3,712,565
Glass, plate, cast, polished, silvered, sq. ft.	53,820	16,192
Glass, all other	$1,988,626	$2,162,349
Glue, lbs.	4,220,034	4,357,517
Glycerine, lbs.	18,762,803	26,631,160
Grease and oils	$440,988	$509,781
Grease	$252,297	$387,373
Guano, tons	4,560	8,708
Gum arabic, lbs	2,168,428	3,925,012
Gum camphor, cde., lbs.	2,171,289	1,461,819
Gum chicle, lbs	2,981,215	4,284,474
Gum, copal & kauri, lbs	17,398,998	17,175,454
Hops, lbs.	2,595,259	2,751,718
Indigo, lbs.	3,037,087	2,919,050
Lead, pigs, bars, etc., lbs	351,449	5,246,671
Lead, in ore, lbs	238,550,874	188,702,838
Licorice Root, lbs	97,157,404	104,935,155
Lime, chloride of, or bleaching powder, lbs	105,068,981	121,694,504
Linseed or flaxseed, bu.	1,532,305	476,977
Logwood, tons	53,636	48,885
Other dyewoods	$209,014	$147,843
Mineral waters, all not artificial, gls.	1,883,276	2,022,648
Nutmegs, lbs.	1,694,300	1,751,305
Oil, mineral, gals	1,979,326	3,033,979
Oil, whale and fish, gls.	719,216	1,138,218
Oil, other animal, gls	46,153	141,918
Oils, volatile or essential	$1,837,817	$1,967,188
Oil, olive, gals	878,694	1,206,990
Oil, other fixed	$3,107,939	$4,350,429
Opium, crude, lbs	564,936	503,996
Opium, prepared, lbs	97,501	154,792
Paints and colors	$1,384,332	$1,453,424
Pepper, lbs.	15,159,787	14,736,792
Perfum'y, cosmetics, etc	$577,568	$671,358
Phosphates, crude, tons	137,623	155,903
Other fertilizers	$1,320,153	$1,404,226
Plumbago, tons	12,115	14,565
Potash, chlorate of, lbs.	955,655	962,315
Potash, muriate of, lbs.	130,224,442	133,775,810
Potash, nitrate of, or saltpeter, crude, lbs	10,488,633	7,723,763
Potash, all other, lbs	52,248,718	70,220,958
Quinine, all salts of, oz.	3,418,408	2,827,547
Shellac, lbs.	8,182,592	7,805,205
Soap, fancy, perfumed and all toilet, lbs	901,473	879,379
Soap, all other	$254,221	$395,214
Soda, ash, lbs	32,038,037	24,387,784
Soda, caustic, lbs	4,970,670	4,010,921
Soda, nitrate of, tons	185,147	174,757
Soda, sal., lbs	4,738,149	3,214,620
Soda, other salts of, lbs.	15,663,062	14,606,862
Spirits, proof, gals	1,830,497	2,075,448
Sponges	$643,583	$558,527
Sulphur or brimstone, crude tons	151,376	177,170
Sulphur ore, tons	310,498	382,236
Sumac, ground, lbs	6,139,500	7,757,515
Vanilla beans, lbs	215,423	290,728
Zinc, in pigs, lbs	1,211,428	961,553

Reports of Domestic Merchandise.

	1901.	1902.
Acids	$184,082	$215,063
Acetate of lime, lbs	57,399,014	56,106,369
Alcohol, proof, gals	212,168	364,110
Alcohol, wood, gals	863,327	519,264
Ashes, pot and pearl, lbs	1,015,090	1,302,994
Baking powder, lbs	757,969	1,000,101
Bark and extract for tanning	$351,513	$275,292
Beeswax, lbs.	135,889	122,119
Candles, lbs.	2,258,675	2,828,852
Cement, bbls.	187,940	355,813
Copper, sulphate of, lbs.	47,628,358	30,076,003
Cork, mfrs. of	$34,142	$43,568
Cottonseed, lbs.	40,996,767	50,434,831
Dyes and dyestuffs	$362,182	$481,094
Flaxseed, bu.	2,741,520	3,874,013
Ginseng, lbs.	149,069	153,040
Glass, window	$53,551	$46,995
Glass, all other	$1,879,219	$1,729,682
Glucose, or grape sugar, lbs.	191,572,745	116,108,912
Glue, lbs.	2,526,646	2,639,414
Grease and all soap stock	$3,108,936	$2,435,504
Gunpowder, lbs.	1,324,083	1,346,249
Hops, lbs.	14,788,840	10,685,055
Lampblack	$278,645	$268,481
Lard, lbs.	561,330,382	518,202,835
Lead, pigs, bars, etc., lb	6,350,162	3,866,276
Lime, bbls.	27,952	37,094
Matches	$81,999	$53,602
Medicines, patent or proprietary	$3,173,869	$292,651
Naphthas, including all lighter products, gals.	16,838,610	21,281,244
Oil, cake, cottonseed, lbs.	1,197,943,080	970,049,175
Oil, cake, linseed, lbs	424,003,221	536,875,457
Oil, corn, gals	4,521,145	3,910,132
Oil, cottonseed, gals.	47,017,078	31,282,411
Oil, fish, gals.	967,554	1,232,259
Oil, illuminating, gals.	711,842,276	772,138,267
Oil, lard, gals.	733,720	428,878
Oil, linseed, gals.	91,114	96,756
Oil, lubricating, gals.	65,871,644	70,737,470
Oil, mineral, crude, gals	129,662,138	118,464,019
Oil, min., residuum, bbls	612,455	626,997
Oil, peppermint, lbs.	59,086	34,568
Oil, other essential	$157,704	$190,705
Oil, other vegetable	$330,924	$207,963
Oil, other animal, gals	527,306	339,668
Oil, whale, gals.	66,115	31,772
Oleo oil, lbs.	144,155,162	130,228,382
Oleomargarine, lbs.	4,611,188	5,455,129
Paints and colors	$1,875,343	$1,883,594
Paraffine wax, lbs	122,495,656	163,501,316
Perfumery & cosmetics.	$349,734	$331,106
Phosphate, crude, tons	581,059	674,073
Other fertilizers	18,347	15,612
Quicksilver, lbs.	686,605	714,523
Rosin, lbs.	2,611,153	2,328,520
Roots, herbs and barks, n. e. s.	$257,062	$278,410
Soap, toilet or fancy	$526,496	$420,772
Soap, all other, lbs	25,774,495	27,458,726
Spermaceti, lbs.	165,488	365,764
Spirits, turpentine, gals.	17,293,030	16,954,535
Starch, lbs.	100,342,448	27,293,497
Tallow, lbs.	73,860,093	32,677,517
Tar, lbs.	30,881	22,121
Turpentine & pitch, bbls	17,748	16,789
Varnish, gals.	559,006	571,211
Washing powders		4,017,309
Whalebone, lbs.	159,671	182,935
Zinc, oxide of, lbs.	8,637,002	8,959,440

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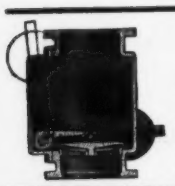

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